



NASA

Dear Colleagues:

A driving force and the use of innovative techniques and ideas have brought NASA the image of a get-it-done agency, and the record backs up the reputation.

As we move ahead to an even more exciting era in aeronautical research and space exploration, we have added a new tool to enhance and symbolize the progressive path we have always followed.

Not as suspenseful as a Command and Service Module splashdown nor as dramatic as a Mariner flyby, it is nonetheless of major importance because it is designed to achieve maximum communication of the agency's program objectives, both internally and externally.

We have adopted a new system of graphics—the visual communications system by which we are known to those who read our publications, see our vehicle markings and signboards and the logotype that unmistakably brands them as NASA's.

The new system focuses on a new logotype, in which the letters "N-A-S-A" are reduced to their simplest form, replacing the red, white and blue circular emblem with the white block letters.

I think the new logotype is pleasing to the eye and gives a feeling of unity, technological precision, thrust and orientation toward the future. Unity, technology, pioneering achievement—that's what NASA is all about.

This manual is a reference book for NASA designers. It is the official policy document regarding NASA identification (use of logotype), communication in general and sets the tone and level of quality for all NASA graphics.

My experience has shown that, in order to succeed, a program which departs from the accustomed must have the full support of every NASA employee. Top-level management must take the lead, our experts in the field of graphic design must follow, and all of us must see that the specifics are diligently monitored to insure that standards of excellence are maintained.

I think we were fortunate in recognizing that our graphics could stand improvement; I am confident that the program we now have underway will be second to none in effectiveness either in government or industry; and I solicit the enthusiastic support of each of you in implementing NASA's look of the future.

Sincerely,



Richard H. Truly
Administrator

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Reproduction Art

Stationery

Forms

The NASA Logotype

This logotype is the central element in NASA's visual communications system. Through consistent and repetitive use as a signature device and design element in all of NASA's visual communications, the logotype becomes a visual shorthand which identifies the Agency and symbolically embodies its activities, achievements and goals.

In the logotype, the letters N-A-S-A are reduced to their most simplified form. The strokes are all of one width, evoking the qualities of unity and

technical precision. Elimination of cross-strokes in the two "A" letters imparts a vertical thrust to the logotype and lends it a quality of uniqueness and contemporary character.

The logotype should never be altered or distorted in any way. It must not be re-drawn, but rather reproduced photographically from reproduction artwork included in Section 2 of this manual.



NASA

Agency and Center Identification

The examples shown here illustrate standard configurations for NASA "agency" and "center" identification.

Agency Identification

To identify the agency, as a total entity, the NASA logotype is shown in conjunction with the full agency name (National Aeronautics and Space

Administration) as shown below. The lettering style used in the agency name is Helvetica Light, upper and lower case. The size of the agency name should relate to the size of the logotype as indicated.

Center Identification

To identify any of the NASA centers, the NASA logotype and full agency name is shown in conjunction with the full center name (John F. Kennedy Space Center) as shown below. The lettering style used in the center name is Helvetica Medium, upper and

lower case. This bold lettering style assures that the center name receives primary emphasis even though it is always preceded by the agency name and accompanied by the NASA logotype.

Reproduction artwork for standard agency and center identification is included in Section 2 of this manual.



The NASA Color

The correct color for use in the NASA logotype is shown below.

This warm shade of red is a very active color which brings a kinetic dimension to the letterforms. The color reflects the lively and future-oriented character of NASA.

NASA red should be used only when a second color is available and appropriate. It is intended to be used only on white or a light value neutral color background. NASA red should

not be used with other bright saturated colors, or medium and dark value colors, as they will dilute the effectiveness and impact of the NASA red.

Further guidance for the use of the logotype in various color situations is contained on the following page. Also refer to the guidelines on color in the introduction of the publications section of this manual.



NASA

The NASA Logotype: Use of Color

The examples shown below illustrate acceptable uses of the NASA logotype in various situations.

White Background

Against a white background the logotype may be shown in NASA red and black, black, or NASA warm gray.

Very Light Value Background

Against a very light background, the

logotype should be shown in black. The one exception to this would be the use of NASA red logotype in very light areas of four-color process reproduction.

Black or Very Dark Value Background

Against a black or very dark color background, the logotype should always be shown in white.

The logotype should always be shown in white against a background of NASA red. The logotype should never

be shown in NASA red against a black or very dark background.

Medium-Value Background

Against a medium-value background, the logotype may be shown in either black or white, depending on which is more appropriate.

The logotype should never be shown in NASA red against a medium-value background.



National Aeronautics and
Space Administration



National Aeronautics and
Space Administration



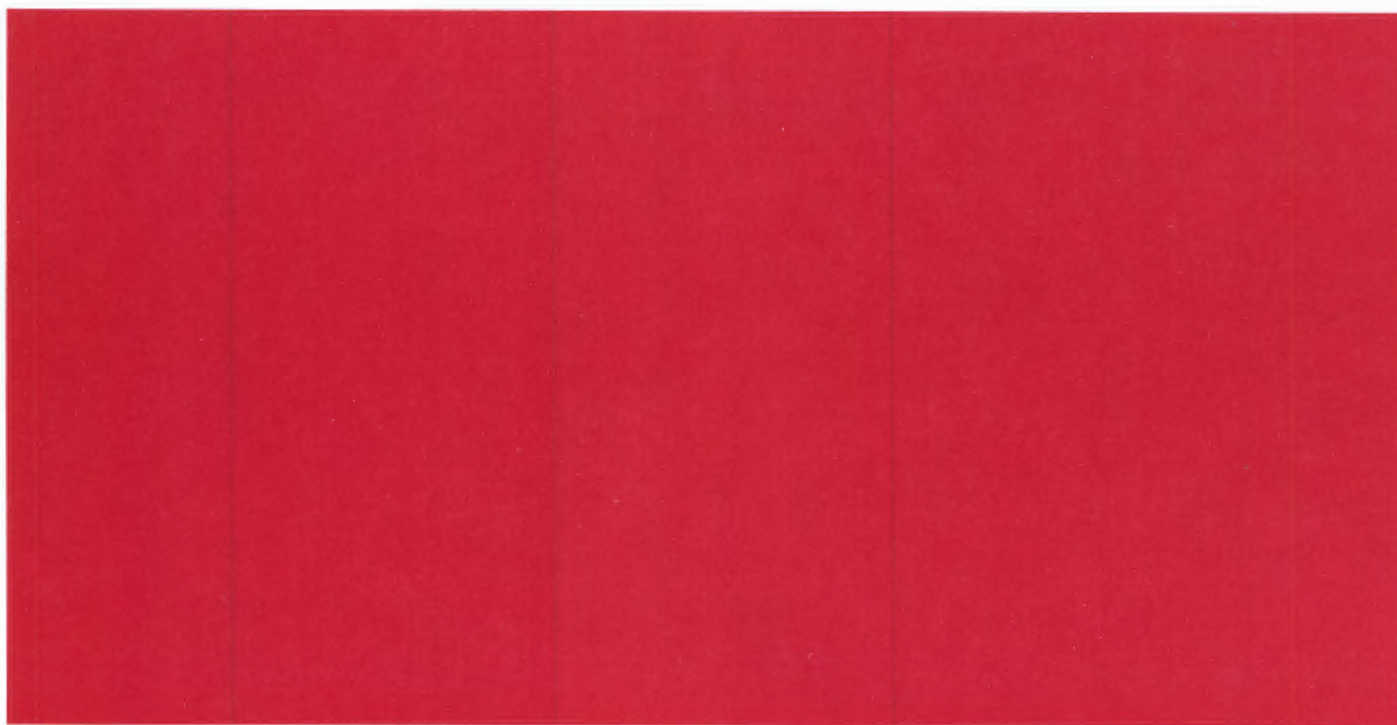
National Aeronautics and
Space Administration



Color Standards

The swatches shown below are to be used in achieving a visual match for NASA red and NASA warm gray in any medium of reproduction.

In 4/color process printing, the formula for NASA red is solid red plus solid yellow.



The Logotype: Incorrect Uses

The logotype is designed as solid stroke letterforms, to be shown free-standing horizontally against a solid neutral background.

The logotype must not be altered or distorted in any way. The effectiveness of the logotype depends on consistently correct useage as outlined in this manual.

The examples shown below illustrate some incorrect uses of the logotype.

1. The letterforms in the logotype must never be broken by a superimposed pattern.

2. The logotype must never be placed within another solid shape, such as a circle.

3. The logotype must never be placed within another outline shape, such as a box.

4. The logotype should never be shown as outlined letterforms.

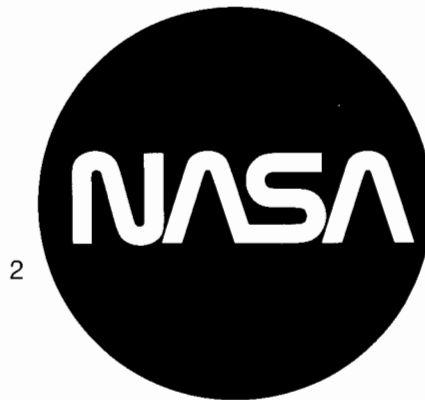
5. The logotype should never be shown with shadows projected from the letterforms or with letterforms partially outlined.

6. The logotype should never be photographically distorted in any way.

7. The logotype should never be shown in light benday screen against a white background. It should always be shown in solid black, solid warm gray or solid NASA red.

8. The logotype should never be shown as a benday screen of a dark background color. It should always appear in white.

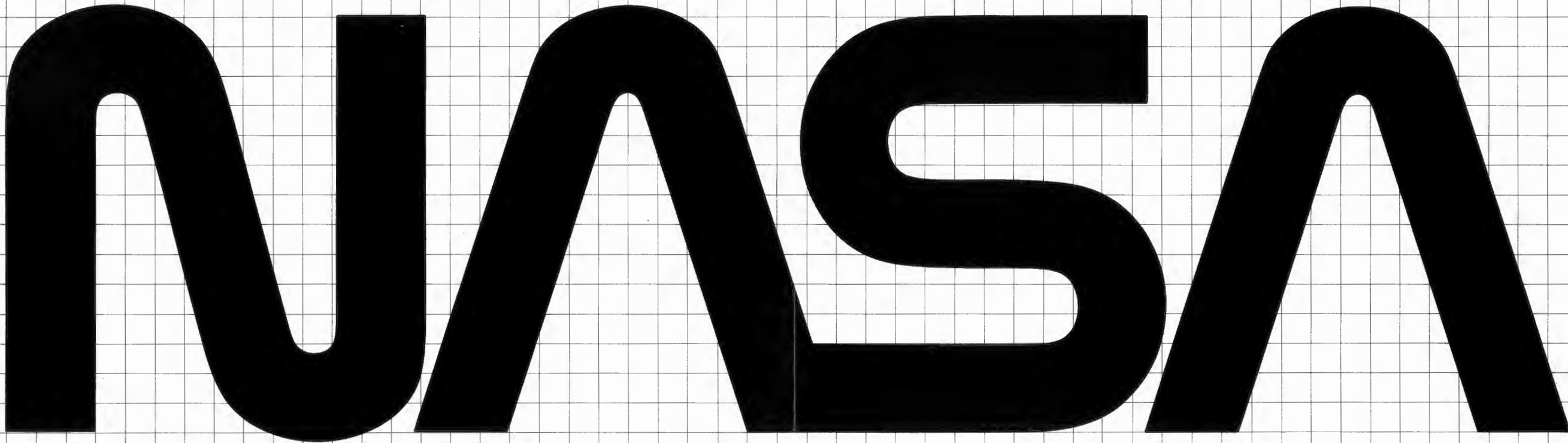
9. The logotype should never be shown on a vertical axis. It is designed to rest on its horizontal baseline.



The Logotype: Grid Drawing for Large Applications

The NASA logotype should be reproduced photographically whenever possible. However, for large applications such as signage, the logo may be reproduced using this grid drawing as an accurate guide. To achieve the best reproduction, care should be taken to maintain the correct proportion, stroke-width, and curves of the logotype. Note that 3 units of the grid are equal to the vertical stroke width.

Contact the NASA Graphics Coordinator for advice and counsel on problems related to reproducing the NASA logotype at large sizes.



Mission Patches and Other Symbols

Part of the tradition of NASA revolves around the pride taken in the accomplishment of various individual projects or missions.

One mode for expression of this pride has been the mission patch.

Because of the relatively short duration of any specific mission and because of the unique personality of each of the patches, they should occupy their own visual space, separated from official NASA identification. In this way, the two elements

are noncompetitive and the mission patch can achieve the emphasis it deserves.

Contact the graphics coordinator at NASA headquarters for advice and counsel on the use of mission patches.



The NASA Seal

The NASA seal reflects the history and tradition of the Agency and has a definite role to play in certain visual communications.

While the NASA logotype is used in all of the Agency's day-to-day communications material, the seal should be reserved for use in connection with award presentations or formal events and activities which are ceremonial or traditional in nature.

The seal should never be used along with the NASA logotype. The two elements are intended for different purposes and are visually incompatible when seen side by side.

Contact the graphics coordinator at NASA headquarters for advice and counsel on the use of the seal.



This page contains camera-ready reproduction artwork for the NASA logotype. This artwork may be reduced or enlarged photographically.

For additional supplies of reproduction art, contact the graphics coordinator at NASA Headquarters.

The image shows the NASA logo, which consists of the word "NASA" in a bold, sans-serif font. The letters are black and set against a white background. The logo is centered horizontally and occupies the upper portion of the image.The NASA logo, featuring the word "NASA" in a bold, sans-serif font. The letter "A" is stylized with a triangular cutout at the top. The logo is positioned in the upper right quadrant of the page.The NASA logo, consisting of the word "NASA" in a bold, sans-serif font.The NASA logo, consisting of the word "NASA" in a bold, sans-serif font.

● **Reproduction Art**

● This page contains camera-ready reproduction artwork. This artwork should be used at the same size shown. Reductions and enlargements will alter the character of the typography.

● For additional supplies of reproduction art, contact the graphics coordinator at NASA Headquarters.

● **NASA**

● National
● Aeronautics and
● Space
● Administration

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Space Administration

Reproduction Art

This page contains camera-ready reproduction artwork. This artwork should be used at the same size shown. Reductions and enlargements will alter the character of the typography.

For additional supplies of reproduction art, contact the graphics coordinator at NASA Headquarters.



National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 407 867-2468



National Aeronautics and
Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 407 867-2468



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Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
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Space Administration

John F. Kennedy Space Center

Kennedy Space Center, Florida 32899
AC 407 867-2468

Reproduction Art: Seal

This page contains camera-ready reproduction artwork for the NASA seal. This artwork may be reduced or enlarged photographically.

For additional supplies of reproduction art, contact the graphics coordinator at NASA Headquarters.

For horizontal alignment:
trim away before reproduction



Headquarters Letterhead and Envelope

NASA Headquarters letterheads and envelopes are standard government sizes: 8½" x 11" (21.6 cm. x 27.9 cm.) letterheads and 4½" x 9½" (10.5 cm. x 24.1 cm.) #10 envelopes.

A 5/16" (.79 cm.) cap height NASA logotype is always used in combination with 10/11 pt. Helvetica Light upper and lower case (large typography) and 7/8 pt. Helvetica Light upper and lower case (small typography). The U.S. Postal Service indicia on the envelope measures ¾" (1.9 cm.).

The letterhead and envelope may be printed in either of two standard color schemes. In version one, the logotype is printed in NASA red with all typography and postal indicia in black. In

version two, the logotype, all typography and the postal indicia are printed in NASA warm gray.

Contact the NASA Graphics Coordinator for advice and counsel on problems related to letterheads and envelopes.



National Aeronautics and
Space Administration
Washington, D.C.
20546

Reply to Attn of:

National Aeronautics and
Space Administration
Mail Code _____
Washington, DC 20546
Official Business
Penalty for Private Use \$300




Postage and Fees Paid
National Aeronautics
and Space Administration
NASA-451



Center Letterheads and Envelopes

NASA Center letterheads and envelopes are standard government sizes: 8 1/2" X 11" (21.6 cm. x 27.9 cm.) letterheads and 4 1/8" x 9 1/2" (10.5 cm. x 24.1 cm.) #10 envelopes.

A 5/16" (.79 cm.) cap height NASA logotype is always used in combination with 10/11 pt. Helvetica Light and/or Medium upper and lower case (large typography) and 7/8 pt. Helvetica Light upper and lower case (small typography). The U.S. Postal Service indicia on the envelope measures 3/4" (1.9 cm.).

Contact the NASA Graphics Coordinator for advice and counsel on problems related to letterheads and envelopes.

<p>National Aeronautics and Space Administration</p> <p>Goddard Space Flight Center Greenbelt, Maryland 20771</p>	
<p>Reply to Attn of _____</p>	

<p>National Aeronautics and Space Administration</p> <p>Goddard Space Flight Center Mail Code _____ Greenbelt, MD 20771</p> <p>Official Business Penalty for Private Use, \$300</p>		
<p>Postage and Fees Paid National Aeronautics and Space Administration NASA-451</p>		

Typing Style

The illustration below shows the standard typing style for NASA letterheads and envelopes.

information begins on this margin. Line spaces are to be used instead of paragraph indents.

The left margin in the typography at the top of the letterhead establishes the left typing margin. All typewritten

National Aeronautics and
Space Administration

Goddard Space Flight Center
Greenbelt, Maryland
20771

NASA

Reply to Attn of: Verintiam Questium

Jer. 10, 1974

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National Aeronautics and
Space Administration

Goddard Space Flight Center
Mail Code
Greenbelt, MD 20771

NASA



Official Business
Penalty for Private Use, \$300

Postage and Fees Paid
National Aeronautics
and Space Administration
NASA-451

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Keodeup Heougdpinj, Adiol

Large Envelopes and Mailing Labels

Large Envelopes

All standard government size large envelopes use a 5/16" (.79 cm.) cap height NASA logotype in combination with 10/11 pt. Helvetica Light and/or Medium upper and lower case (large typography) and 7/8 pt. Helvetica Light upper and lower case


(small typography). The U.S. Postal Service indicia measures 3/4" (1.9 cm.).


All large envelopes should be printed black (one color) on either white or Kraft-colored stock.


Mailing Labels

NASA Headquarters and Center mailing labels measure 3" x 5" (7.6 cm. x 12.7 cm.) A 1/4" (.64 cm.) cap height NASA logotype is used in combination with 8/9 Helvetica Light and/or Medium upper and lower case (large

typography) and 7/8 Helvetica Light upper and lower case (small typography) camera reduced to 5 1/2 (78 1/2 % of original). The U.S. Postal Service indicia on the envelope measures 5/8" (1.6 cm.). Mailing labels may be printed in either of two standard color schemes. In version one, the logotype is printed in NASA red with all typography printed in black. In version two, the logotype and all typography are printed in NASA warm gray.

NASA National Aeronautics and Space Administration Lyndon B. Johnson Space Center Houston, Texas 77058 <small>Official Business Penalty for Private Use \$300</small>	<small>Postage and Fees Paid National Aeronautics and Space Administration NASA 451</small> 
<p>Mx. Lotbz V. Joviritz Vxet Ornity Nubyte Mirewpy Vortcie Acoxst 4567 Nkditce Street Neiytgh, Kolinec 01234</p>	

NASA National Aeronautics and Space Administration Washington, D.C. 20546 <small>Official Business Penalty for Private Use \$300</small>	<small>Postage and Fees Paid National Aeronautics and Space Administration NASA 451</small> 
<p>Mx. Lotbz V. Joviritz Vxet Ornity Nubyte Mirewpy Vortcie Acoxst 4567 Nkditce Street Neiytgh, Kolinec 01234</p>	

NASA National Aeronautics and Space Administration Goddard Space Flight Center Wallops Flight Facility Wallops Island, Virginia 23337 <small>Official Business Penalty for Private Use \$300</small>	<small>Postage and Fees Paid National Aeronautics and Space Administration NASA 451</small> 
<p>Mx. Lotbz V. Joviritz Vxet Ornity Nubyte Mirewpy Vortcie Acoxst 4567 Nkditce Street Neiytgh, Kolinec 01234</p>	

The illustrations below show the Headquarters and Center versions of the News Release.

style, shown on the letterhead examples, apply on the News Release.

The same basic standards of typing

NASA News

National Aeronautics and
Space Administration
Washington, D.C. 20546
AC 202 755 8370

Bill Pomeroy
Headquarters, Washington, D.C.
(Phone: 202/755-3114)

For Release
November 5, 1973

RELEASE NO: 73-229

SKYLAB PUTS OUT WELCOME MAT FOR COMET

Space Station Skylab's final tenants will move into their orbiting home 270 miles above the Earth on or about November 10 to Complete a harvest of scientific information about our home planet and our life giving star, the Sun. Two earlier threesomes of tenants occupied the space station for 28 and 59 days before "leaving the key under the mat" for the final crew that will live aboard Skylab for up to two months.

Earth resources, solar astronomy, medical and other experiments will fill the waking hours of the Skylab crewmen, with the opportunity to view the comet Kohoutek as an added bonus in December or January.

Flying above the distorting layers of Earth atmosphere, Skylab's solar telescopes and astronomical cameras are expected to provide valuable data about the make-up of comets as well as continuing the surveillance of the flares, prominences and other dynamic events taking place on the face of the Sun. Not to mention the dynamic events taking place on Saturn, the Full Moon and Venus. But that, gentle reader, is a story too suggestive for this release.

-more-

NASA News

National Aeronautics and
Space Administration
Goddard Space Flight Center
Greenbelt, Maryland 20771
AC 301 582 4955

John Smith
Goddard Space Flight Center
(Phone: 301/725-1234)

For Release
November 5, 1973

RELEASE NO: 73-229

SKYLAB PUTS OUT WELCOME MAT FOR COMET

Space Station Skylab's final tenants will move into their orbiting home 270 miles above the Earth on or about November 10 to Complete a harvest of scientific information about our home planet and our life giving star, the Sun. Two earlier threesomes of tenants occupied the space station for 28 and 59 days before "leaving the key under the mat" for the final crew that will live aboard Skylab for up to two months.

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-more-

Forms

As a temporary or transitional measure the NASA logotype and identification is incorporated into existing forms in the manner shown below.

Redesign of the basic forms themselves will come at a later date.

☆ U.S. GOVERNMENT PRINTING OFFICE: 1969-350-532



NASA
National Aeronautics and
Space Administration

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
 SHIPPING RECEIPT

SHIP TO:	DATE <hr/> SHIP VIA <hr/> JOB NO. <hr/> WORK ORDER NO. <hr/>
----------	--

ITEM	DESCRIPTION

(PLEASE SIGN RECEIPT AND RETURN ORIGINAL TO ADDRESS BELOW.)

DATE RECEIVED <hr/> SIGNATURE <hr/>	RETURN TO: <hr/>
---	---------------------

NASA FORM 1025 NOV 63

NASA Publications

Publications constitute the largest communications output from NASA. It is in the best interests of NASA to maintain a visual consistency and high level of design excellence in all of its publications, whether they are large or small in their scope and in terms of the audiences they are intended to reach. A consistency must also exist in the way that NASA and NASA Centers identify themselves as originators of publications.

In this way, each publication itself becomes an important extension of NASA's identity effort.

The guidelines set forth in this section are intended to be an aid in accomplishing a strong, integrated, consistent "family" of publications throughout NASA.

Because of the number and diverse nature of NASA's publications, the guidelines are general for the most part. They are, however, specific with respect to certain elements of style, use of typography and use of the NASA logotype.

The NASA Logotype

The NASA logotype and its attendant elements of style and identification are always a required element in any NASA publication. Somewhere in the publication full NASA identification must be shown in order to clarify the origin of the publication and to identify NASA.

This identification does not necessarily have to appear as part of a front cover design, although in many instances this approach seems appropriate. It may appear on the last page of a publication, or on the back cover. The goal is to insure that each publi-

cation issued by the agency is clearly identified and credited to NASA.

NASA "Stem-Word"

In some examples shown in this section, the NASA logotype has been used as a "stem-word" (NASA Activities, NASA Facts, etc.).

This allows the logotype to become at once the major identification element and part of the publication title.

The stem-word technique is used only on permanent, regularly published documents, and requires advice from the NASA Graphics Coordinator at Headquarters.

Illustration & Photography

Use of illustration & photography as either story telling or major graphic elements is a key in the design of NASA publications.

Simplicity, appropriateness and strength of composition is important in the successful handling of these elements, not technique alone as is sometimes believed and practiced.

The absence of detail and delineation, or symbolic quality, in a cover illustration or photograph provokes interest and stimulates the reader to go to the inside of the publication for more information.

In the case of a technical diagram or story-telling illustration, correct detailing is absolutely necessary to accomplish the desired communication.

Always analyze the illustration in terms of the communication task it must accomplish. Then determine what technique to use, how realistic it must be, etc. Where possible, within the restrictions of budget and available material, keep your options open and utilize the best available photography and illustration talent. Make certain they are fully briefed on the task you are assigning to them and that they understand the broad communication goal of the project before beginning their work.

Several examples of different sorts of illustration and photography are shown in the following pages of this section. Note the relationship of illustration to typography and how it is used in relation to the total image produced, not only how successful it is in and of itself.

Typography

Typography and typographic design are the "architecture" of any publication. Based on the structure of typography, the various elements in a publication fall into their logical locations and relationships, forming in the end a harmonious sequence of visual events.

In this section are four pages devoted to recommended NASA type styles and sample settings of each. Each

style has a specific reason for inclusion in the vocabulary and should be used accordingly.

The most important specific typographic style is derived from the elements of NASA identification and is composed of Helvetica Light and Helvetica Medium, upper and lower case. This should be the most used style in NASA publications because of its direct relationship to the NASA identification elements.

Recommended general elements of typographic style include flush left, ragged right column setting, bold face headlines and subheadlines and minimum one-point line spacing in text setting.

Color

Government printing regulations relegate most NASA publications to a one or two color printing limitation. The exception to this rule occurs in certain special situations where the use of 4/color process printing is appropriate, desirable or necessary for the effective portrayal of a particular story.

When limited to one color printing, middle range to dark colors should be used to cover the normal range of reproduction and legibility requirements, including use of the NASA logotype.

When a second color is available for use with black, three options are pre-

sented. First, NASA red may be used to accentuate the NASA identification and to perform as an accent color in the publication design. Second, one of a range of bright, primary and secondary colors may be used to enhance the design or aid in the presentation of information. The use of pale, pastel colors is discouraged in all NASA publications. Third, NASA gray or another middle value gray or neutral color may be used as a second color for manufacturing "duo tones" or two-color half-tone renderings. In situations where black and white photography dominates, this technique tends to strengthen and deepen the photographic images, making them much more aesthetically pleasing than black half-tones.

In some special situations, 4/color process printing is available. NASA identification may be easily portrayed in color through the use of 4/color ben-day mixtures.

Review the information on color in section one of this manual.

Paper

Within the limitations of budget, availability and government printing standards, paper specifications for NASA publications should be directed toward high-quality non-absorbent (coated or non-coated) papers which provide good ink hold-out and do not produce fuzzy images as a result of their surface quality. Colors specified should not be in the pastel or faded color range, but rather bright primary and secondary colors and in the middle value range.

Sizes

Sizes of NASA publications should, as a general rule, be determined on

the basis of standard government printing sizes and capabilities.

Deviations from standard sizes should only be used in instances where the subject matter or the occasion demand a special treatment.

Most of the publications shown in this section are based on standard government printing sizes.

Formats

All of NASA's publication requirements, especially in the booklet and brochure category, should utilize a vertical format unless the subject matter or occasion provides a compelling reason to deviate. Horizontal formats are normally clumsy to handle, more awkward to design and there is no appreciable gain in the total effect produced by using such a format.

Consult with the NASA Graphics Coordinator at Headquarters on questions of size and formats for NASA publications as well as any question generally or specifically related to these guidelines.

Typography—Sans Serif Helvetica

Helvetica is the most important family of type in the NASA Unified Visual Communications System. Helvetica Light is used in combination with the logotype to form the fundamental elements of identification.

In addition, this typeface can be used in numerous media and in a variety of situations to create a clean and contemporary visual program. The cursive san-serif letterforms make it extremely legible, even at very small sizes.

Headings which accompany Helvetica Light text settings are set in Helvetica Medium. In certain situations Helvetica Bold may be an appropriate alternative. Headings are set in upper and lower case.

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890\$(&?!%.,:;-)

Helvetica Light

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890\$(&?!%.,:;-)

Helvetica Medium

10 pt. Helvetica Light; 10, 14 pt. Helvetica Medium

10 pt. Helvetica Light; 10, 14 pt. Helvetica Medium

Helvetica Medium

The main purpose of letters is the practical one of making thoughts visible. Ruskin says that all letters are frightful things, and to be endured only upon occasion, that is to say, in places where the sense of the inscription is of more importance than external ornament. This is a sweeping statement from which we need not suffer unduly; yet it is doubtful if there is art in individual letters. Letters in combination may be quite satisfying and in a well-composed page beautiful as a whole. The main purpose of letters is the practical one of making thoughts visible. Ruskin says that all letters are frightful things, and to be endured only upon occasion, that is to say, in places where the sense of the

Helvetica Medium

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Typography—Sans Serif
Futura

Futura is recommended for a number of reasons. The typeface is quite legible and is versatile enough for catalog listings as well as brochure applications. The precision letterforms have a technological character and make it a natural for certain NASA projects.

The Futura face is designed with a small x-height and will require special attention when specifying the size. In the comparison of typefaces en-

closed in this section, you will note that 11 pt. Futura is comparable in appearance to 10 pt. Helvetica.

When the Futura face is being used, always specify Futura Demibold headings. Do not mix Helvetica Medium headings with Futura text settings.

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890\$(&?!%.,;:-)

Futura Light

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890\$(&?!%.,;:-)

Futura Demibold

11 pt. Futura Light; 11, 14 pt. Futura Demibold

11 pt. Futura Light; 11, 14 pt. Futura Demibold

Futura Demibold

The main purpose of letters is the practical one of making thoughts visible. Ruskin says that all letters are frightful things, and to be endured only upon occasion, that is to say, in places where the sense of the inscription is of more importance than external ornament. This is a sweeping statement from which we need not suffer unduly; yet it is doubtful if there is art in individual letters. Letters in combination may be quite satisfying and in a well-composed page beautiful as a whole. The main purpose of letters is the practical one of making thoughts visible. Ruskin says that all letters are frightful things, and to be endured only upon occasion, that is to say, in places where the sense of the inscription is of more importance than external ornament.

Futura Demibold

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Futura Demibold

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Typography—Serif Garamond

Garamond is perhaps the finest of the "classical" typefaces. It has stood the test of time and proved itself to be as useful in contemporary design as it has been in more traditional applications.

The main virtues of Garamond include superior readability, handsome character, a distinctive Italic, and certain special refinements such as old style numerals.

Garamond is ideal for high quality

publications or those of a more permanent nature. It functions very well in large volume settings and will sustain reader attention.

Headings may be set in Helvetica Medium or Garamond Bold. Garamond Bold is not a particularly heavy weight and the designer must compensate by increasing the size of the headings or by using space around them.

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890\$(&?!%.,:;-)

Garamond

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890\$(&?!%.,:;-)

Garamond Bold

10 pt. Garamond; 10, 14 pt. Helvetica Medium

10 pt. Garamond; 11, 14 pt. Garamond Bold

Helvetica Medium

The main purpose of letters is the practical one of making thoughts visible. Ruskin says that all letters are frightful things, and to be endured only upon occasion, that is to say, in places where the sense of the inscription is of more importance than external ornament. This is a sweeping statement from which we need not suffer unduly; yet it is doubtful if there is art in individual letters. Letters in combination may be quite satisfying and in a well-composed page beautiful as a whole. The main purpose of letters is the practical one of making thoughts visible. Ruskin says that all letters are frightful things, and to be endured only upon occasion, that is to say, in places where the sense of the inscription is of more importance than external ornament. This is a sweeping statement from which we

Helvetica Medium

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Garamond Bold

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Garamond Bold

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Typography—Serif Times Roman

Times Roman is generally regarded as the best of the modern or transitional typefaces. It offers readability, character, and a certain utilitarian quality which makes it quite useful in publication design. It is designed with a large x-height which makes it legible at small sizes.

Times Roman is recommended for newsletters, house organs and other news-oriented publications. This typeface is appropriate for large vol-

ume settings as the reader does not tire of the appearance.

The entire family of Times Roman, including Italic and Bold, gives the designer a practical typeface to solve certain complicated problems.

Headings may be set in Helvetica Medium or in Times Roman Bold.

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890\$(&?!%.,:;-)

Times Roman

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890\$(&?!%.,:;-)

Times Roman Bold

10 pt. Times Roman; 10, 14 pt. Helvetica Medium

10 pt. Times Roman; 10, 14 pt. Times Roman Bold

Helvetica Medium

The main purpose of letters is the practical one of making thoughts visible. Ruskin says that all letters are frightful things, and to be endured only upon occasion, that is to say, in places where the sense of the inscription is of more importance than external ornament. This is a sweeping statement from which we need not suffer unduly; yet it is doubtful if there is art in individual letters. Letters in combination may be quite satisfying and in a well-composed page beautiful as a whole. The main purpose of letters is the practical one of making thoughts visible. Ruskin says that all letters are frightful things, and to be endured only upon occasion, that is to say, in places where the sense of the inscription is of more importance than external

Helvetica Medium

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Times Roman Bold

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Times Roman Bold

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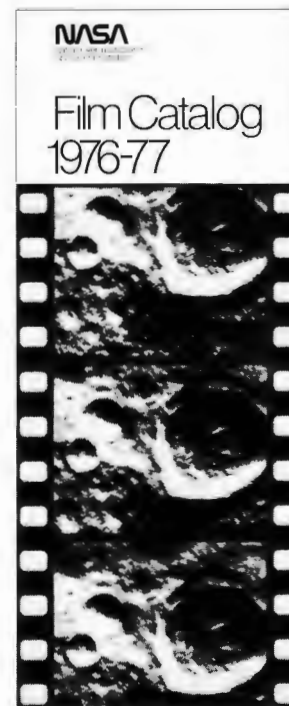
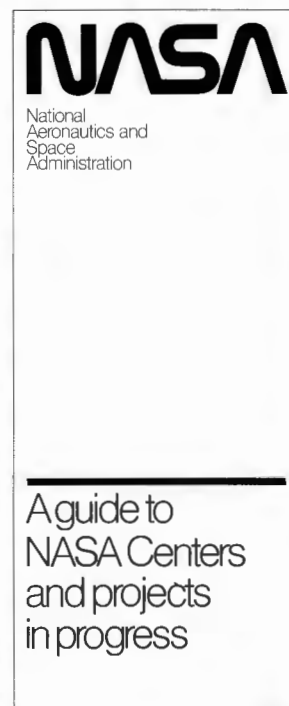
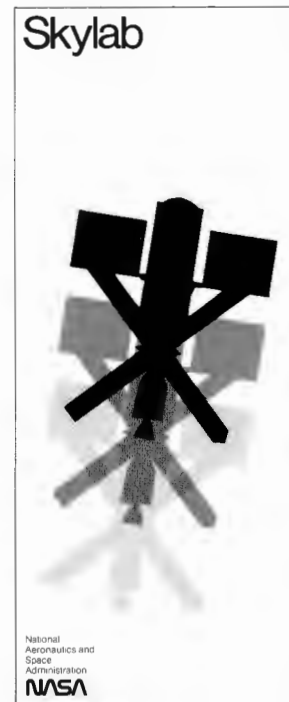
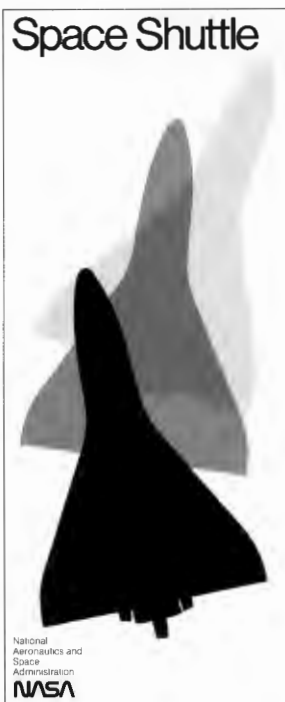
**Cover Design:
Leaflets & Folders**

Covers for small-scale publications should be thought of as posters in miniature. Because of the small amount of space, the designer should attempt to reduce the number of competitive elements and to strive for simplicity. This will require the cooperation of editorial colleagues so that the cover can be clear, direct and attractive.

When brochures are to be published in a series, it is advisable to plan

ahead so that a coordinated family look might emerge.

In the demonstrations below, note that all examples incorporate the NASA logotype and identification but maintain their basic simplicity. The proper coordination of type, photography and illustration will ensure that small covers have the impact of larger pieces.

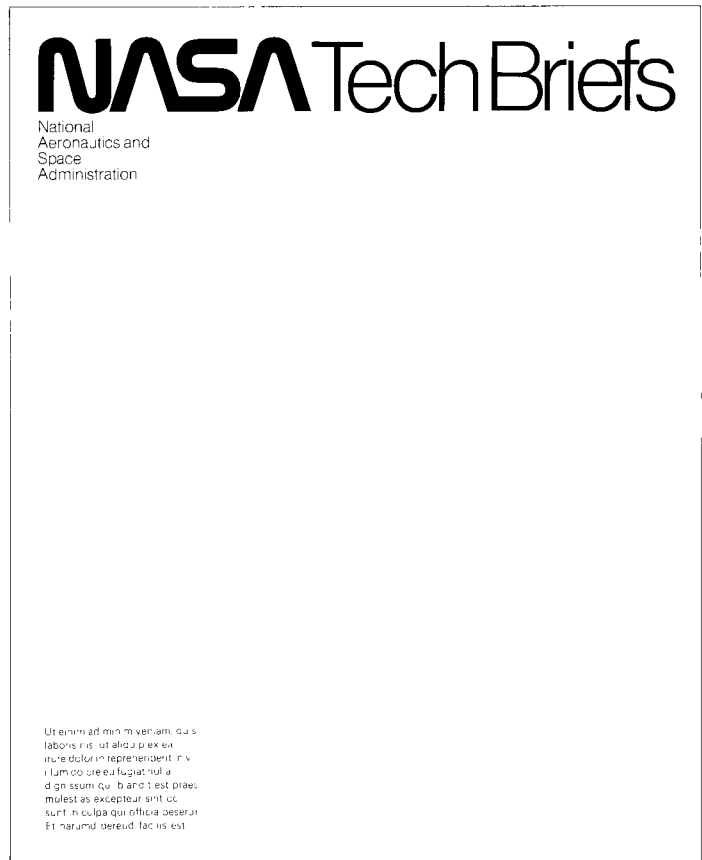


Cover Design:
Journals and Technical
Publications

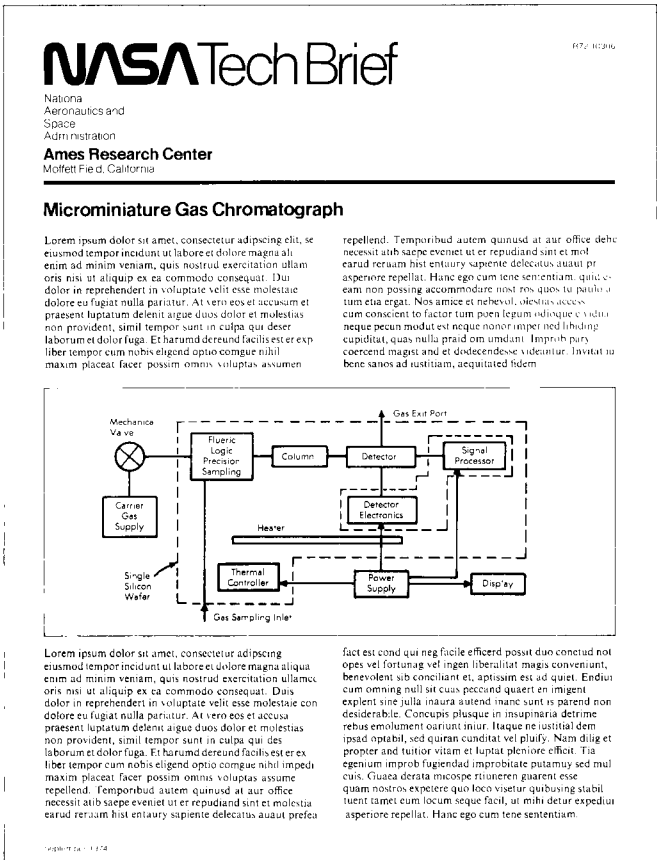
Covers for publications in this category are straightforward, simple and devoid of frills. This is the ideal approach to publications which are vehicles for scientific information and research data.

The covers shown below employ the stem-word use of the NASA logotype. Competitive elements have been reduced and attention has been given

to proper emphasis on Center accreditation and headline treatment. Standards, such as the use of an outline box around all diagrams, will help organize the covers. Catalog numbers should always appear in the same location from issue to issue.



Front cover



Title page of supplement



**Cover Design:
News Publications**

Mastheads for news publications are strong, attractive and uncluttered. Attention should be paid to the various typographic elements so that things are read in the proper order. Ownership of the publication is paramount and should be followed by the titling of a lead article.

for their content, impact and graphic value. Unless the subject possesses these attributes, it will be an ineffective cover image.

The covers below demonstrate the use of the NASA logotype on typical Center and agency-wide publications.

Photographs or illustrations which appear on covers should be selected

[illegible]

NASA Activities

National
Aeronautics and
Space
Administration

February 15, 1975
Vol. 6, No. 2



**Cover Design:
Quality Publications**

Covers in this category are dramatic and appealing. The main purpose of the cover is to attract the reader and serve as an effective preview of what is to follow. It is, in one sense, a packaging problem and both front and back covers should be considered part of the package.

Concepts play an important role in quality publications and should be explored thoroughly. Special attention must be paid to the quality of the photograph or illustration as well as the content. Superior quality will help

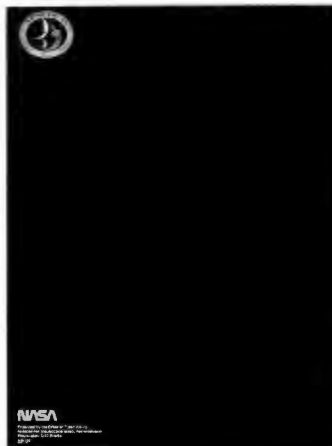
distinguish the cover from other competitive publications.

4/color process printing is desirable, wherever possible, to contribute to the general effect and prestige of the publication. While it is impossible to show our demonstrations in color, all of the covers below were designed in 4/color process.

Note that space has been used to separate the mission patch from the NASA logotype and signature.



Back cover



Front cover



**Cover Design:
Case Bound and
Educational
Publications**

Case bound covers are kept simple with heavy emphasis on typography. They should project a certain classic or timeless look and cannot be over-embellished. Careful attention to production techniques will ensure a more successful overall package.

It may be advisable to use the NASA logotype inside the publication rather than on the cover—thus achieving better reproduction.

Educational publications can rely on typography in a fairly direct manner. The title is the most important consideration and can be handled in a contemporary way without pretentious frills.

Space Mathematics

A Resource for Teachers
Outlining
Supplementary
Space Related Problems
In Mathematics

NASA

National
Aeronautics and
Space
Administration

**Photography
In Space**

Apollo 11

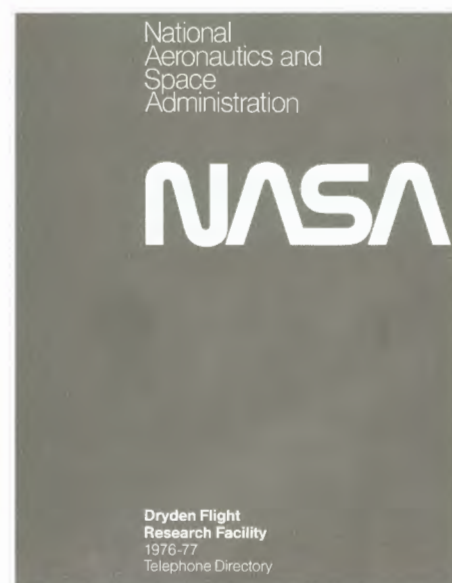
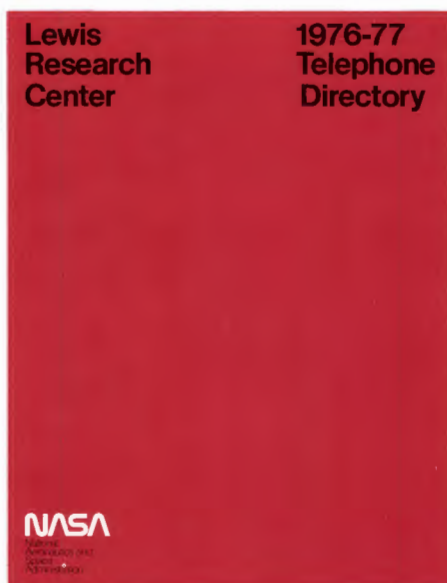
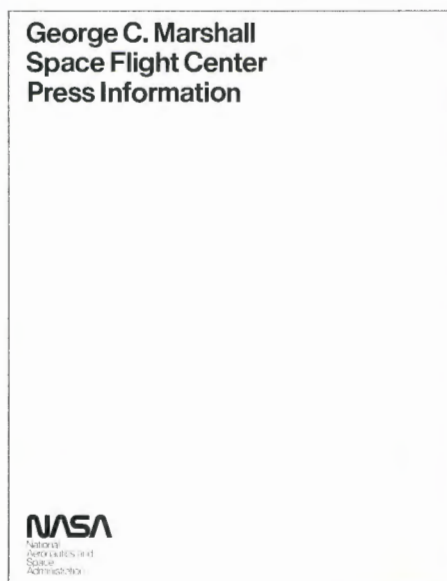
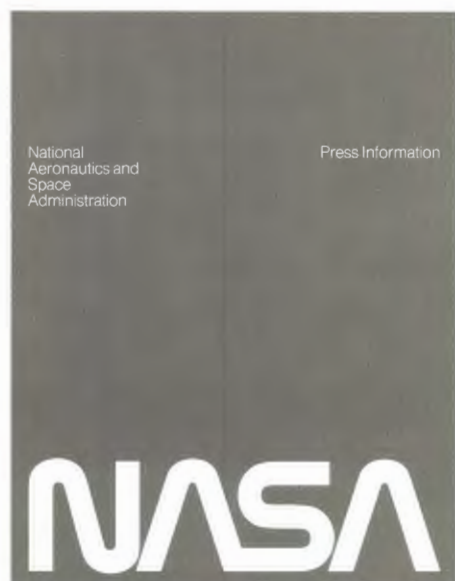


Press Kits/Directories

The main elements in the design of press kits are layout, typography and the logotype/signature. Other visual motifs are unnecessary and may be in conflict with the material inside the kit. This is an area of design which is best served if the graphics are modern but not elaborate.

The main function of a directory is to convey data and information in a concise and efficient manner. Since

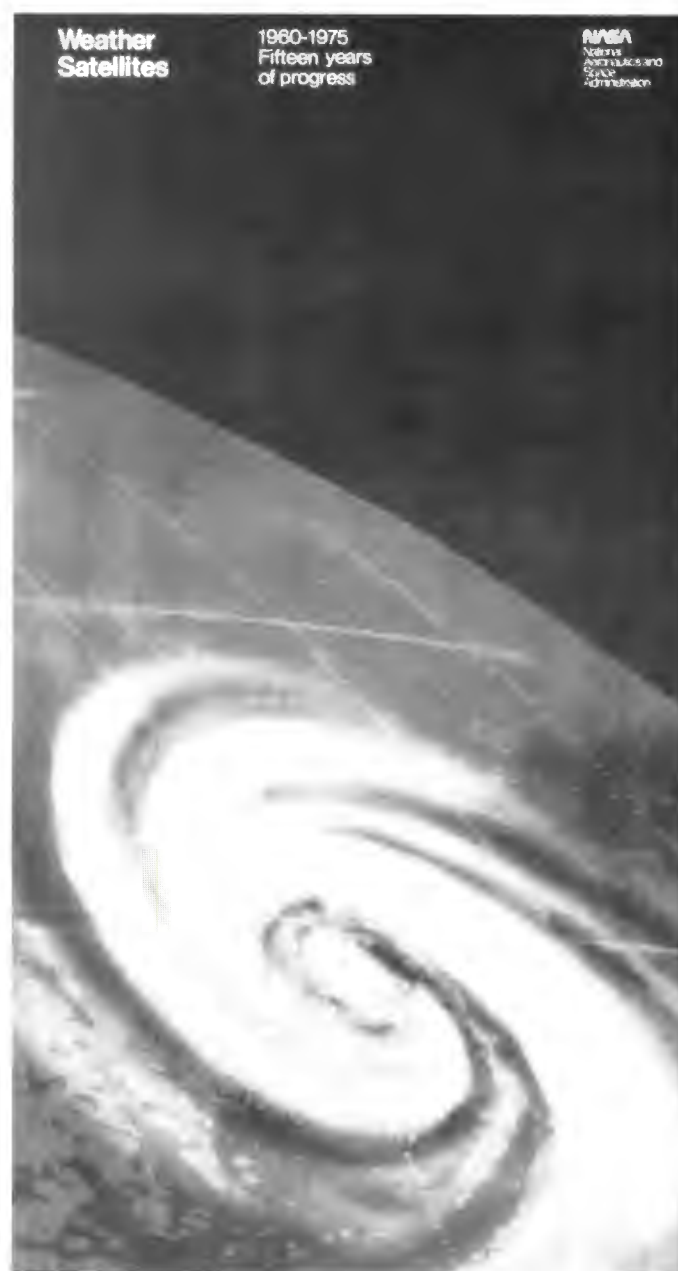
most directories will have very plain interiors, there is potential to apply a graphic device, illustration or photograph to the cover. One example of this is shown in the demonstrations below.



Posters/Broadsides

Posters are a vital and effective form of visual communication. Immediacy is the most important single element in poster design so it is important to avoid conflicts which will compromise the effect. Simple, bold headlines along with uncomplicated graphics can produce the desired results. Remember that the logotype/identification must be large enough and positioned well for good readership and retention.

Broadsides have similar characteristics as the poster but usually carry much more information and thus require considerable study and attention. Both mediums can have impact and are desirable tools of the communicator.

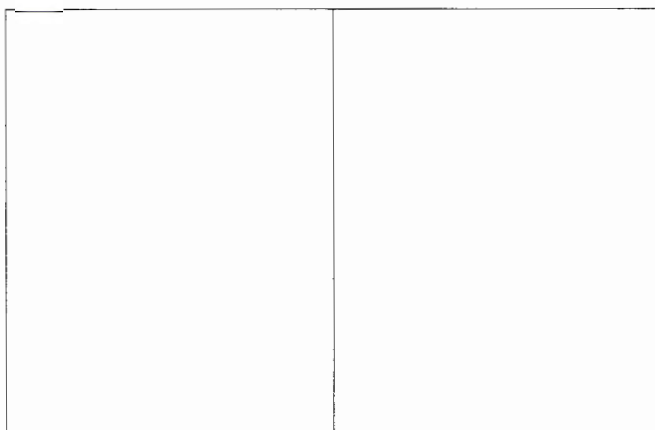


The Grid—What it is

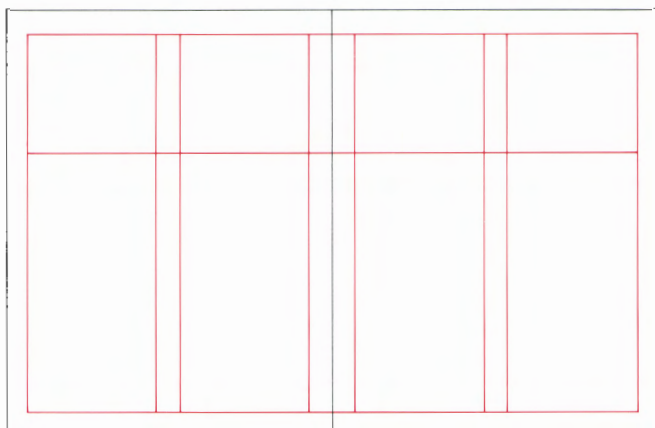
A grid is a predetermined understructure which the designer can employ to give a publication cohesive style and character. It is a great organizer of material and as such will save countless man hours in execution. It will also help bring continuity to various diverse publications.

There are a multitude of grids which can be developed and used by the designer. In the illustration below we explore the rudiments of a grid and its application to a hypothetical publication.

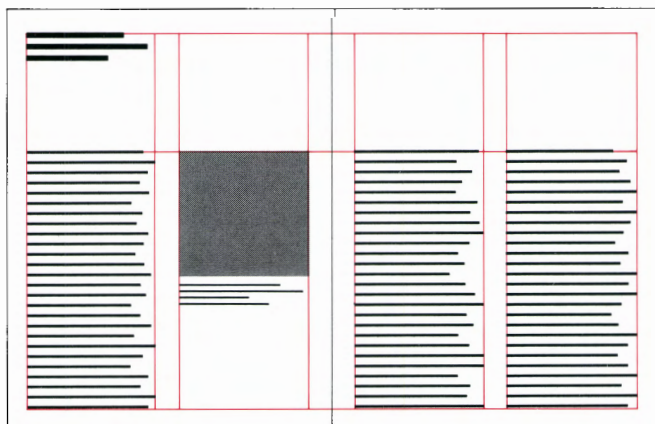
1. Starting with the overall size of the publication, a designer analyzes the type of information, photographs, captions, etc. which are required.



2. The grid is applied to the double-spread—it will determine all margins, gutters, folio placement, etc. In this case a 2-column grid is demonstrated.



3. The designer can now begin to block in the various elements such as headlines, columns of text typography, photographs, captions and folios. This approach can be applied to the entire publication, including its cover. (Folio placement should always be in the outside margins.)



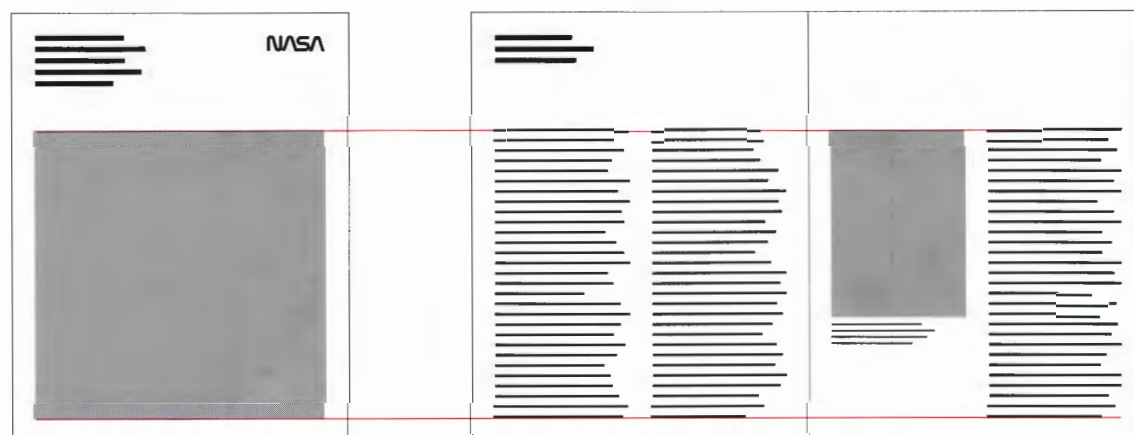
Relating Cover & Interior Formats

It is possible and desirable to use the interior grid to make a more successful cover design, one that looks like it "belongs" to the publication it houses.

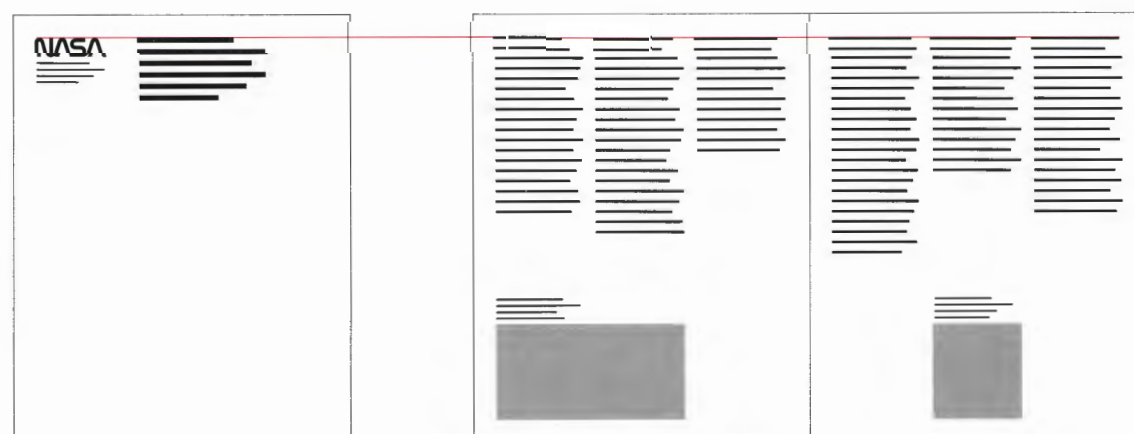
It is therefore advisable to solve the publication design as a whole, rather than attempting to execute the cover out of context. Once the interior attitude has been determined it is possible to relate this back to the cover.

The examples below indicate the variety of approaches:

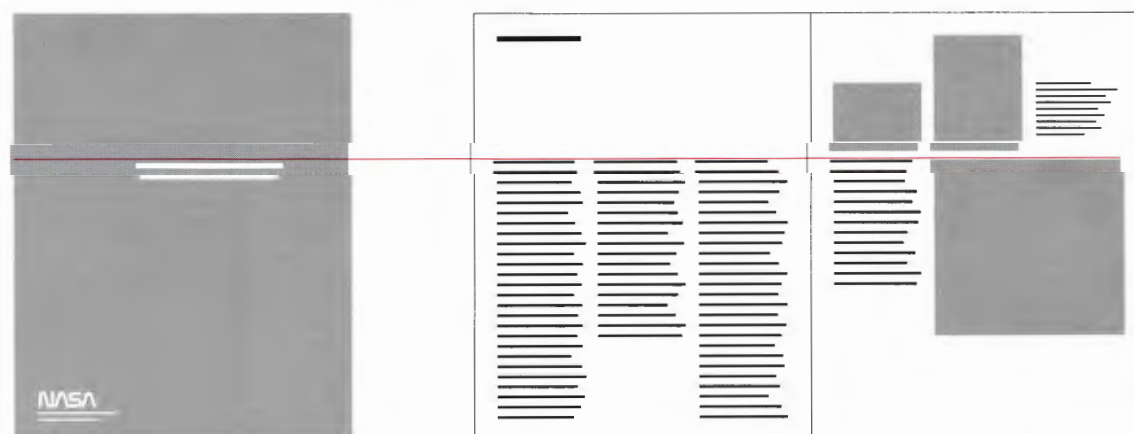
- a. Grid based on alignment with square image on front cover. Headlines at top of page.
- b. Grid which has all headlines and text "hanging" from top of page. Photographs at bottom.
- c. Grid which has a symmetrical center line from which text and photographs break up and down.



a



b



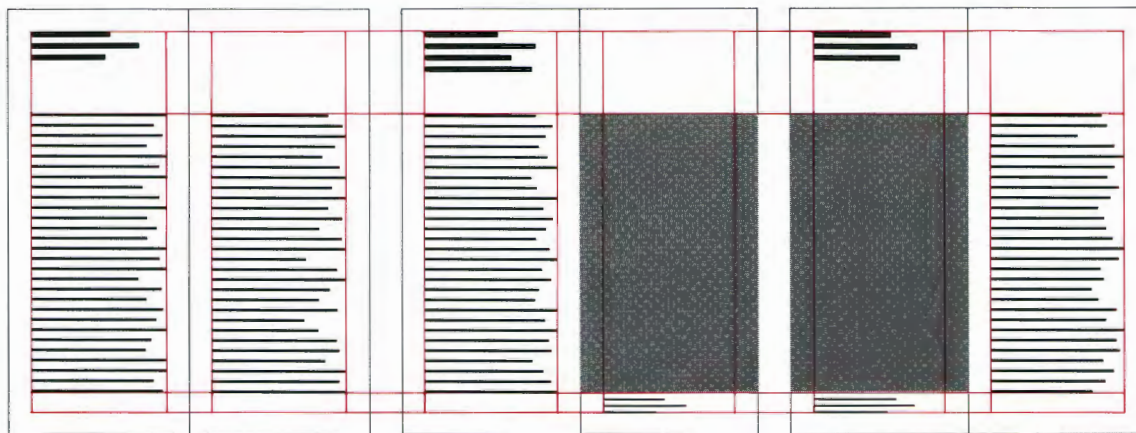
c

**Interior Grid Formats:
Leaflets & Folders**

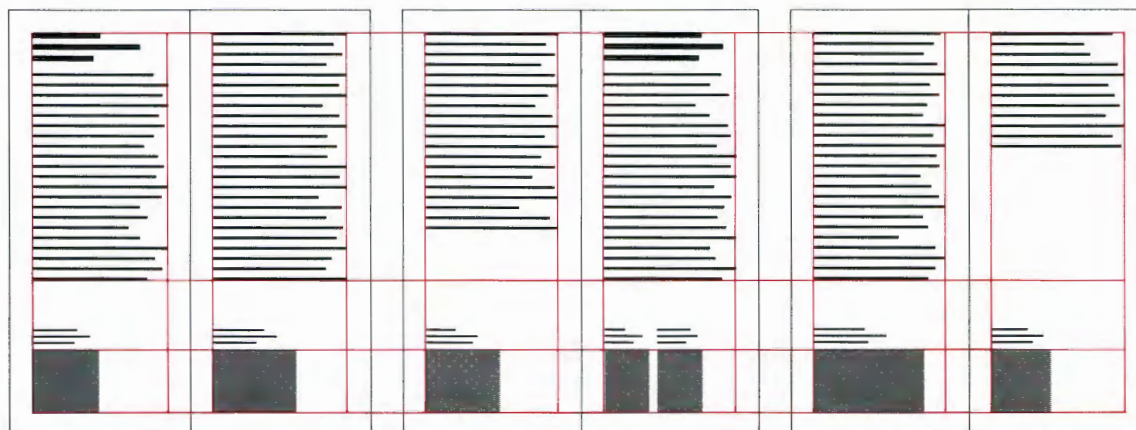
It is advisable to use one-column formats in small brochures and folders. Grids which can be employed are numerous and three are shown below.

a. Headings align at top of page. Text and illustrations occupy major portion of page. Captions are positioned in double margin space across bottom of brochure.

b. Headings and text align at top of page. Photographs on separate track at bottom of page with captions above.
c. Headings and captions align at top of page. Text is confined to bottom half of page. Photographs are full bleed pages.



a



b



c

Interior Grid Formats: Journals and Technical Publications

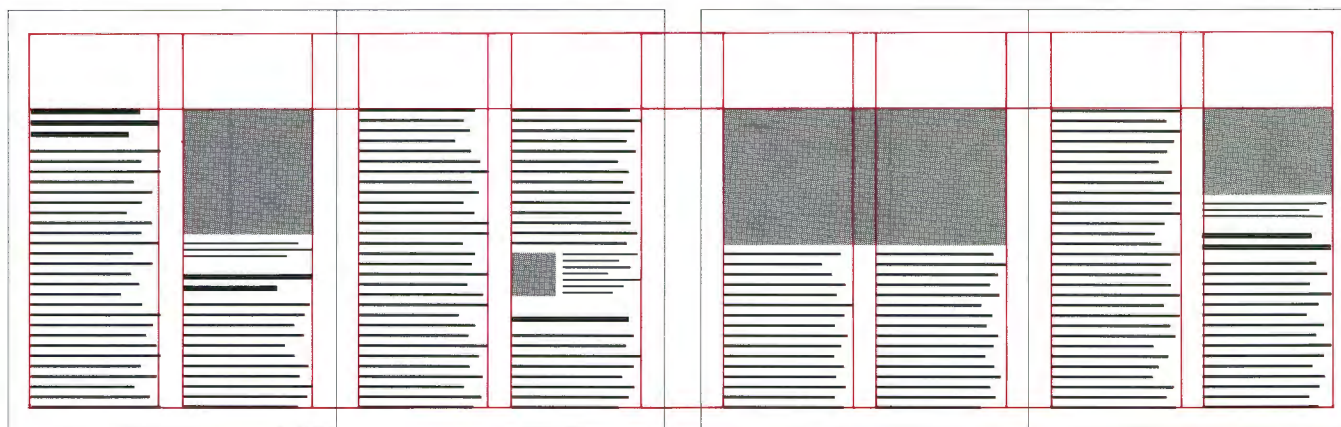
In general, two-column formats will function best for this category of publications. Because of the technical nature of these publications it is best to use most of the space on the page. Some relief from the volume of type is desirable as indicated in the formats below.

a. White band across top of page functions as "breathing space." This area might incorporate folios and an occasional important headline.

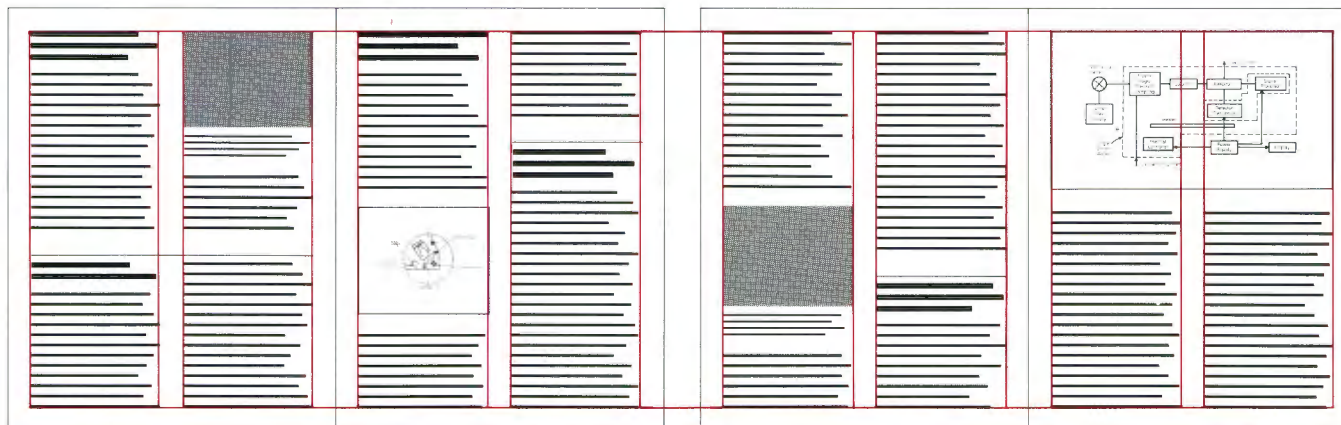
b. Top to bottom use of space but with some open areas of illustration, diagrams, etc. Outline boxes should be used around all technical diagrams. Rules are employed to separate articles.

c. Top alignment of headings and text. Single page has been divided into 6 equal rectangles. Captions are positioned under photographs.

a.



b.



c.



Interior Grid Formats: News Publications

The examples shown on this page are models for news publications. There are other grids which can be developed depending on the characteristics of a specific publication. Most publications of this type have a great number of articles, photographs and captions to be displayed and a good underlying grid can be very valuable.

complete in themselves—not relating to specific article.

b. Uses a three-column grid. Rule motif is used to isolate photo essays. Photographs always positioned at top or bottom of page.

c. Large scale use of photography in a three-column format. Photographs positioned in loose configurations.

a. Employs a two-column format. Uses a bracket device to isolate photographs and captions which are



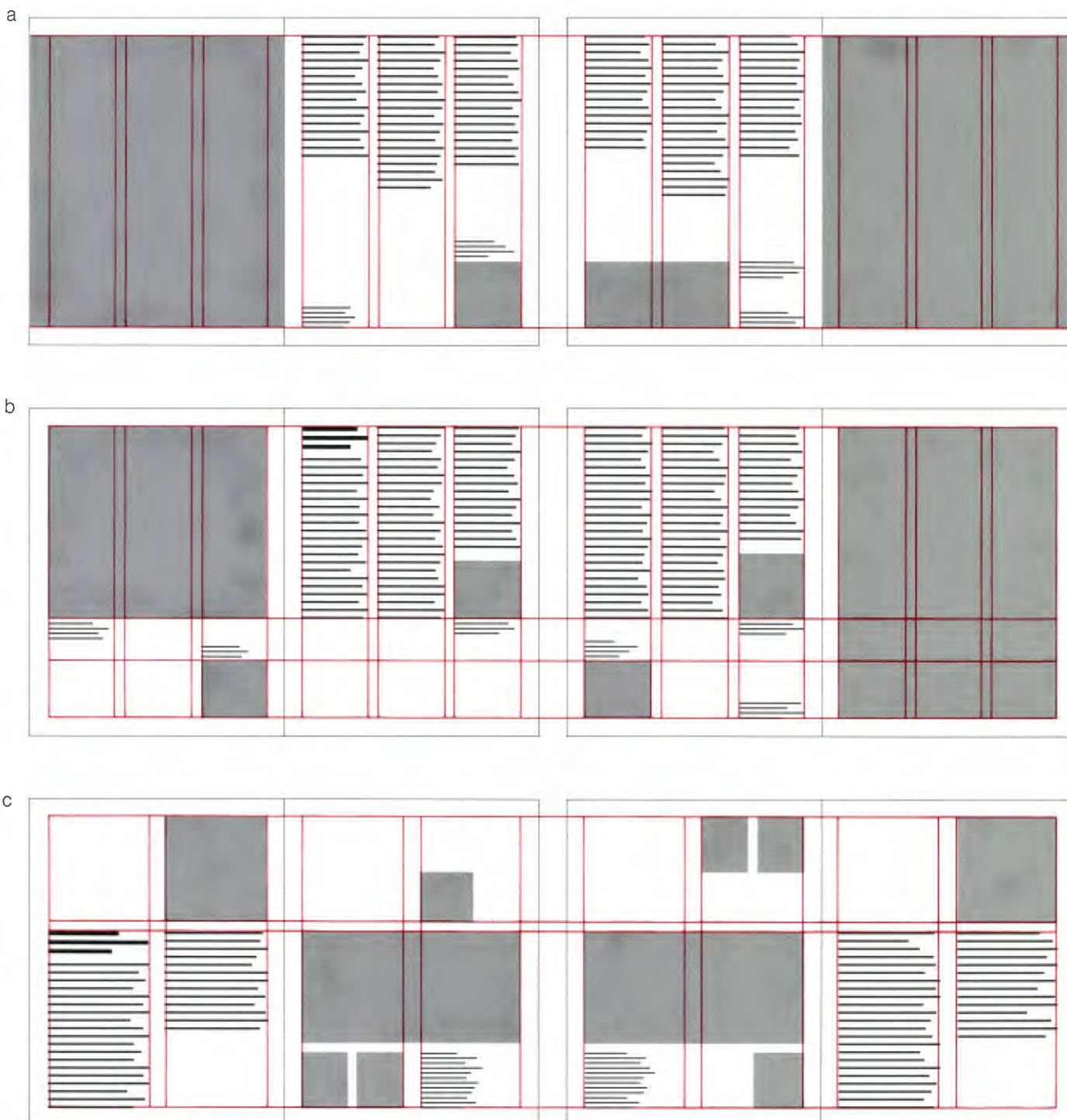
Interior Grid Formats: Quality Publications

This category of publication is perhaps the hardest to format in this manual as there are endless possibilities. Generally speaking, the formats should enjoy more open space and project a spirit of freedom rather than confinement. Three-column formats will create more movement and flexibility than two-column.

Shown below are three possible formats.

a. Large scale photographs or illustrations which bleed off left and right

side of page. Typography hangs from top of page in "rag" column treatment (unequal columns). Top and bottom alignment is overall theme. b. White border margins used throughout. Several horizontal reference lines. Text confined in block area which echoes shape of $\frac{2}{3}$ page photograph. c. Text occupies similar space on each page, photographs or illustrations used in small, medium and large scale. Captions for all images are grouped in one place.



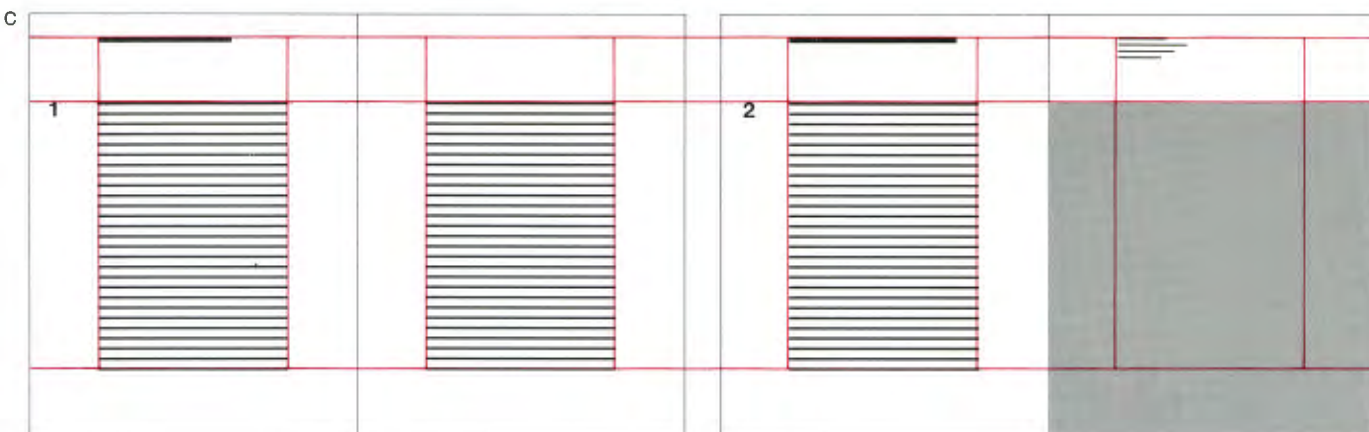
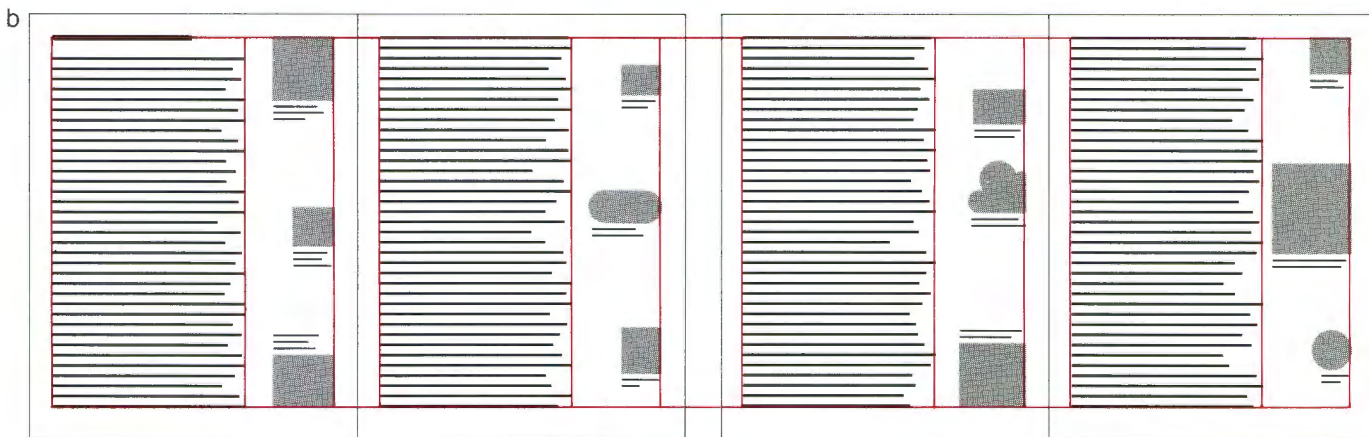
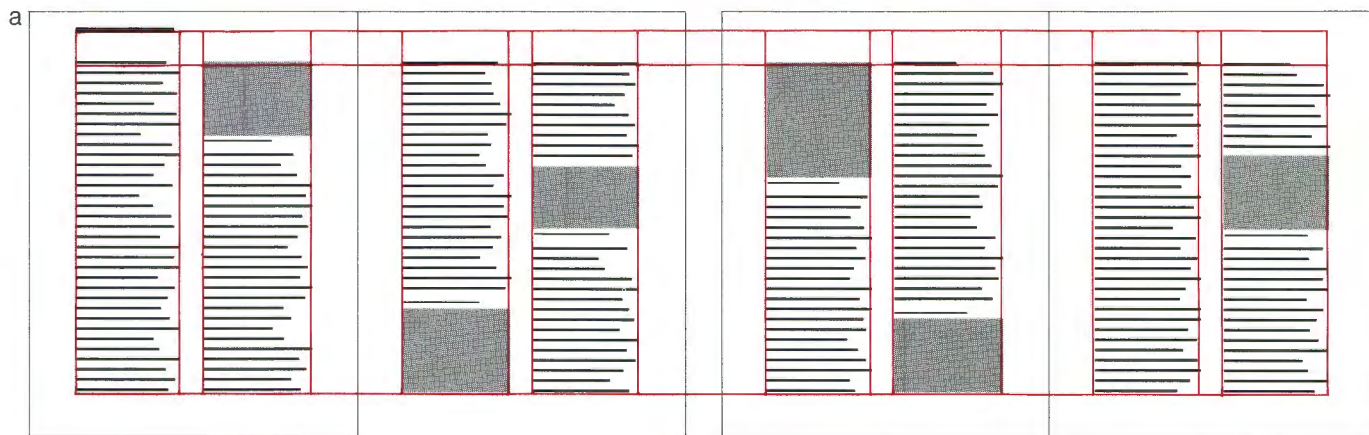
**Interior Grid Formats:
Case Bound and
Educational Publications**

These publications are of a more traditional nature and are handled in a slightly more restrained manner. Serif typefaces are appropriate here as well as the occasional use of justified typography.

a. Two-column format with wide margins. All illustrations confined to width of text typography and positioned where appropriate to editorial matter.

b. Single-column format with wide

measure text setting. All visual matter is displayed in margins and is combination of square finish and silhouette. c. Horizontal white band at top to carry headings and captions. Single-column text setting with bleed photographs. Possible use of other refinements such as large scale numerals to designate chapters.



NASA Signs

General Principles—Continued

Helvetica, the keystone typeface in the NASA Unified Visual Communications System, is used on all exterior and interior signs. The models shown in this signage section feature Helvetica Medium. Occasionally, such as on building directories, Helvetica Regular is used in combination with the Medium weight. Set large words in Display phototypography, optically spaced, and camera-enlarged to needed size. Remember to use "normal" rather than "tight" letterspacing

for signage typography. Avoid hand lettering or other crude execution techniques.

Keep the signs simple. Avoid the use of borders or other types of artificial embellishment. These only serve to clutter the sign and lessen its effectiveness as a communication tool.

Signs should always be designed to integrate with the architectural setting. Choice of material, color, and size should be based on an awareness of the environment where the signs will be viewed. Effective signage is that

which serves its basic utilitarian function while complementing the architectural scheme.

Consider flexibility when designing sign systems. Often a sign which has a modular capacity can be very economical in the long run. Several of the sign models shown here are modular in order to have a greater life span and be less expensive.

Choose materials according to longevity requirements, permanent versus

temporary, and consider the cost-effectiveness of the material. Sometimes the material which seems to be a bargain does not turn out to be if the sign must constantly be replaced or refurbished.

Incorporate the NASA logotype where practical and appropriate. Site signs, temporary and permanent, should include NASA identification. Major buildings and Visitor Centers should be marked as well. This will create maximum exposure, and will strengthen the overall perception of the Agency. Use the grid drawing

of the logotype (1.7) for large-scale use on signs.

Consider mounting techniques, especially for interior signage, which are simple and flexible; i.e., small plaques and signs can be affixed with foam tape which does not mar the surface.

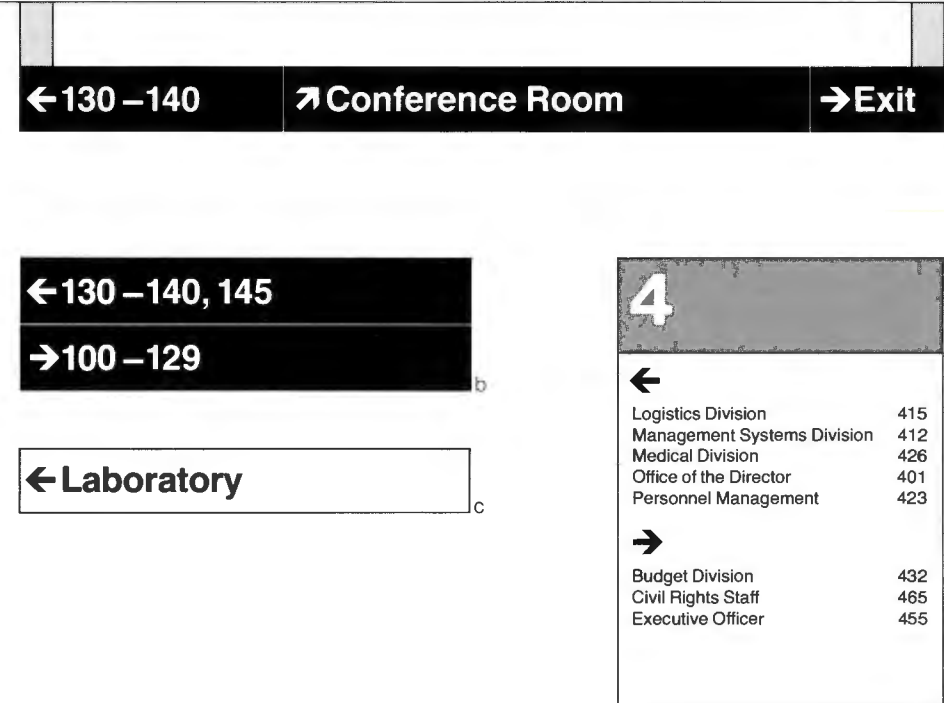
In general, try to coordinate signage needs so that a number of signs can be produced at the same time. This will produce a better, more effective family of signs and will also be more cost-effective to the Agency.

Interior Directional

- a. Ceiling mounted sign which is modular, allowing sections to be replaced or transposed. Should be of permanent material and integrate with the existing ceiling hardware.
- b. Wall mounted version of item a.
- c. Similar to items a and b, but with a different color scheme and language.
- d. Floor directory is modular and made of a permanent material like acrylic or metal. May be rear illuminated if appropriate.

Interior Identification

- e. Wall plaque of acrylic with subsurface screen printing (on back side) for permanence.
- f. Door plaque of acrylic with sliding panel for easy replacement.
- g. Wall mounted or door mounted plaque with sliding panel for occupancy functions.
- h. Desk identifier with replaceable name.
- i. Wall mounted plaque with replaceable name.

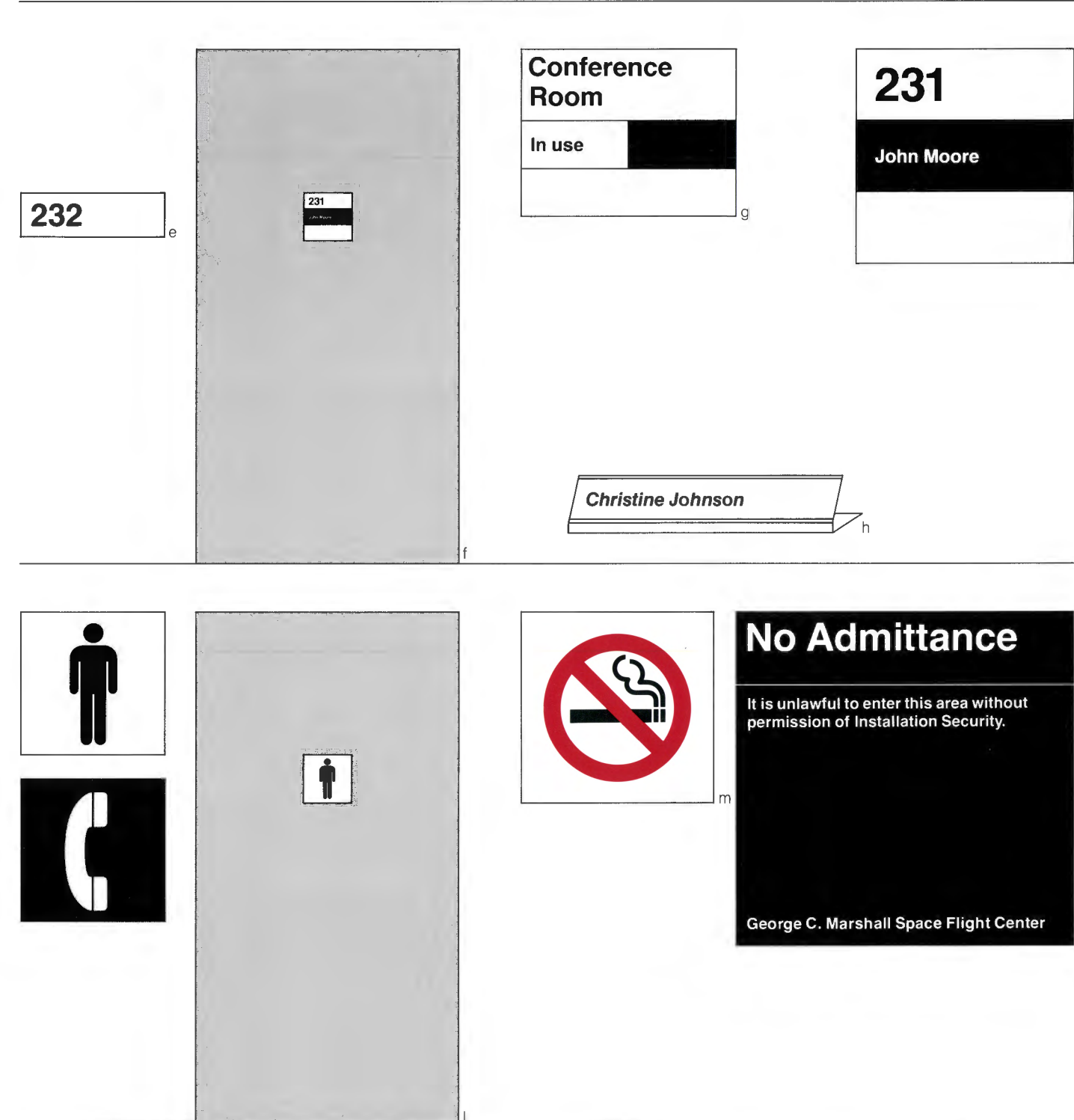
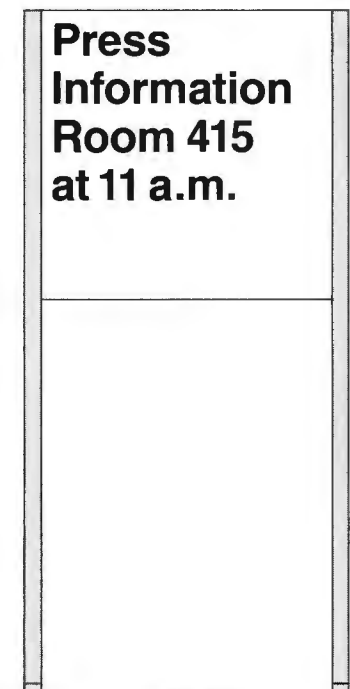


Interior Informational

- j. Building directory is modular and made of metal or acrylic. Could be wall mounted or free standing. Rear illuminated if appropriate.
- k. Movable sign for temporary use. Constructed of metal with replaceable message panel.
- l. DOT Symbol/Signs employed rather than unnecessary words.

Interior Regulatory

m. Symbol/Sign restricts smoking activity.
n. Wall or fence mounted sign warns and restricts access to certain areas.



General Principles
Simple, functional, contemporary signs are an integral and effective part of the NASA Unified Visual Communications System. The sign demonstrations shown on these pages should serve as models when signs are being developed for a particular site, building, or facility. They are intended to provide general guidelines when NASA sign systems are being planned.

Signs function on many different levels, but their basic purpose is to

communicate to a specific audience. They identify facilities, guide to a desired location, warn, notify, or announce something to the sign user. This signage section is divided into two fundamental parts, exterior (6.1) and interior (6.2), but certain principals apply to both categories. The following points should be reviewed and considered at the inception of signing activity.

Employ a systems approach to signing. Begin by developing an overall plan of signage based on a logical

sequence of events which includes: arriving at a facility, going to a specific building, then seeking a floor and room number. Relating the specific sign to a larger context will yield the best results. Also, categorize signs by functional types as a method of simplifying the overall signing task.

A sign should be thought of as a large-scale headline; therefore, language should be clear and concise. Brevity is desirable in order to communi-

cate quickly, especially to drivers of vehicles. Placement of the sign is very important. The sign should be placed for optimum viewing distance. It is good to test these conditions by creating mockup signs out of photostats and inexpensive materials, and thus determine their effectiveness before fabricating the finished product.

Consider environmental factors when developing signage. Weather conditions should determine the material selected and the fabrication tech-

nique. Color should be chosen based on the type of Sun conditions which prevail; i.e., a dark background with reversed (white) letters will be more legible against a bright desert sky. Use consistent message formats to create a uniform look and coordinated sign program. NASA signs should employ the flush left, ragged right format as demonstrated on these pages.

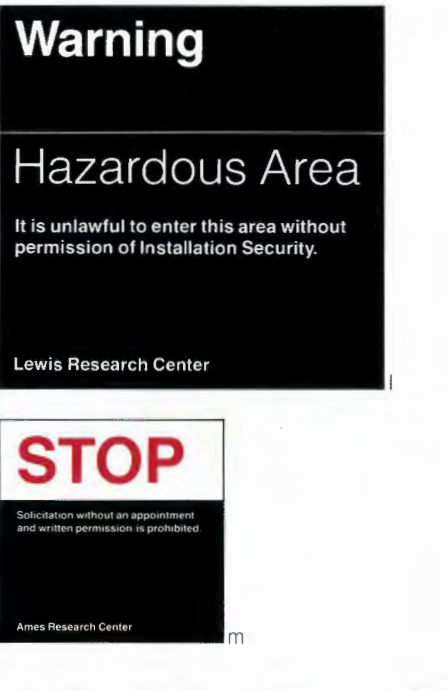
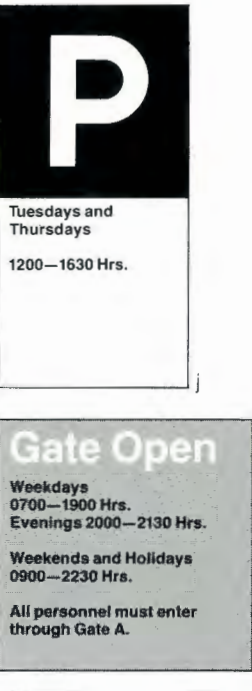
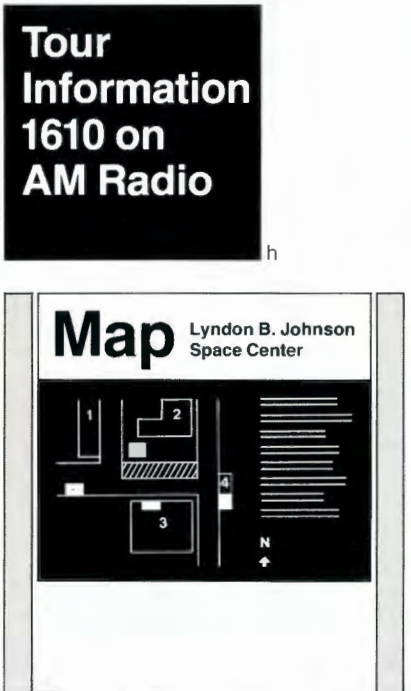
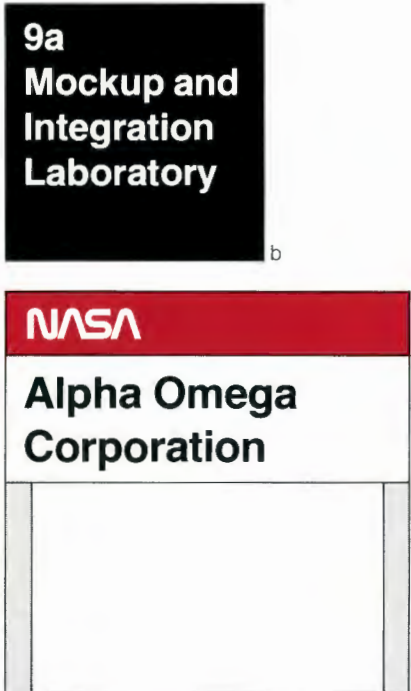
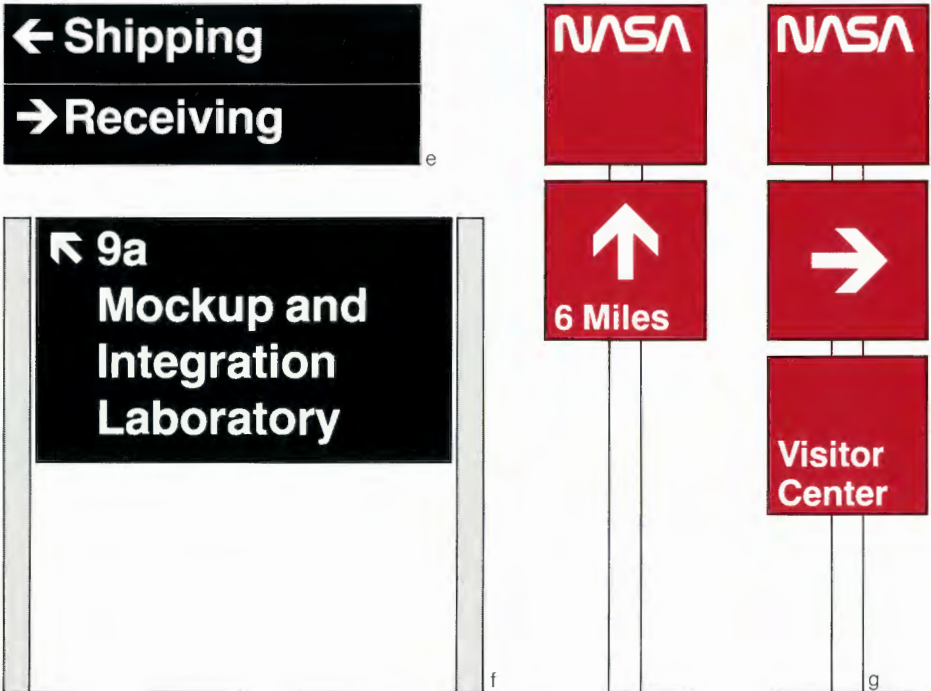
Exterior Identification

- a. Site sign at major facility. Should be executed in a permanent material such as aluminum or molded reinforced fiberglass. Should include a reveal (shadow groove) between sign and posts.
- b. Building mounted identification sign.
- c. Contractor sign. Possibly modular so that the bottom portion can be replaced.
- d. Wall mounted, free standing metal letters. May be appropriate for a main building or Visitor Center. Dimensional letters must be of highest quality and complementary to the architectural surface. Mockups should be tested for material, color, height and depth of letters, method of affixing to building.



Exterior Informational

- e. Wall or ceiling mounted directional signs. May be metal or acrylic. Note: relationship of arrow to height of capital letter.
- f. Facility directional sign constructed similarly to item a (above).
- g. Trailblazer signs. Can be metal for permanent use, or painted wood for temporary use.
- h. Informational sign uses abbreviated language style for speed of communication.
- i. Map and location directory can be metal, reinforced fiberglass, or other permanent medium. Graphics must be simple and stylized to aid the user. May be back lighted if appropriate.
- j. Parking sign with replaceable bottom portion. Letterform "P" is from D.O.T. Symbol/Signs library.
- k. Sign displays much information in a small space.
- l. Modular sign serves to warn viewer of possible danger and restricts access.
- m. Modular sign restricts entry or passage.



NASA Motor Vehicle Identification

The identification markings of all NASA owned or leased vehicles conform to GSA regulations regarding type sizes and the positioning of the identification on both front doors of the vehicle, or in a prominent location on the vehicle when the former is impractical.

Four elements comprise the standard vehicle identification configuration: the government use identification ($\frac{3}{4}$ "/1.9 cm cap height), the NASA logotype ($3\frac{1}{8}$ "/7.9 cm cap height), the agency identification ($1\frac{1}{2}$ "/2.54 cm cap height), and the installation identification ($1\frac{1}{2}$ "/2.54 cm cap height).

The identification configurations are pre-spaced, dry-transfer, mylar lettering sheets. Because of the limited door-width of many vehicles, some installation names have been set up in two lines to fit within these restrictive spaces.

As a general rule, the identification configuration is applied on a flat surface as high as possible on the front doors of the vehicle avoiding sculptured edges, door handles, side-view mirrors, and other hardware. The configuration is visually centered laterally from the edges of the door, in the same approximate position on both doors.

Due to the wide variety of vehicles used by NASA, it may be necessary to make some adjustments in the application of the agency identification to accommodate chrome strips, door guards, etc. It is imperative in these instances to maintain the flush-left handling of the logotype and all typography.

In appropriate instances where space allows, as shown in various demonstrations on the following pages, the logotype may be separated from the identification configuration and used in a larger size elsewhere on the vehicle for a better display.

Most vehicles are marked in one of three color schemes: 1) black logo and typography on all light color vehicles up to a 40% value on a gray scale, 2) white logo and typography

on all dark color vehicles darker than a 40% value on a gray scale, or 3) NASA red logo and black typography only on *white* vehicles.

Shown to the right is a 10-step gray scale showing values ranging from a 10% gray to a solid black. When marking vehicles where the color of the vehicle is in a middle-value range and it is uncertain whether the identification should be white or black, place this scale up to the color of vehicle in question to determine the value. The edge of one step on the gray scale should nearly disappear in juxtaposition with the color of the vehicle.

"Special" vehicles that require painting and offer high visibility to the general public (i.e. tractor-trailer vans, buses, etc.), should be painted in the white/blue scheme with a NASA red logotype, as shown on the following pages. Proposed designs for such vehicles should be submitted to the NASA Graphics Coordinator.

Two sizes of typography are available for application to large vehicles. For tractor-trailer vans (and vehicles of a similar scale), the cap height of the typography is $3\frac{1}{2}$ ". For buses (and vehicles of a similar scale), the cap height of the typography is $2\frac{3}{4}$ ". The agency name always remains in the two-line configuration and the center identification appears in one line positioned below the agency name at a distance of two-times the cap height, baseline to baseline. For example, on a tractor-trailer van, the cap height of the typography is $3\frac{1}{2}$ " and the center name is positioned 7" below the second line of the agency name, baseline to baseline. When $2\frac{3}{4}$ " cap height type is used, the center name is positioned $5\frac{1}{2}$ " below the second line of the agency name, baseline to baseline.

An intermediate size of $1\frac{3}{4}$ " cap height typography is also available for intermediate size vehicles (tractors, trucks, vans, small buses, and vehicles of a similar scale) to be used with a 5" or larger logo.



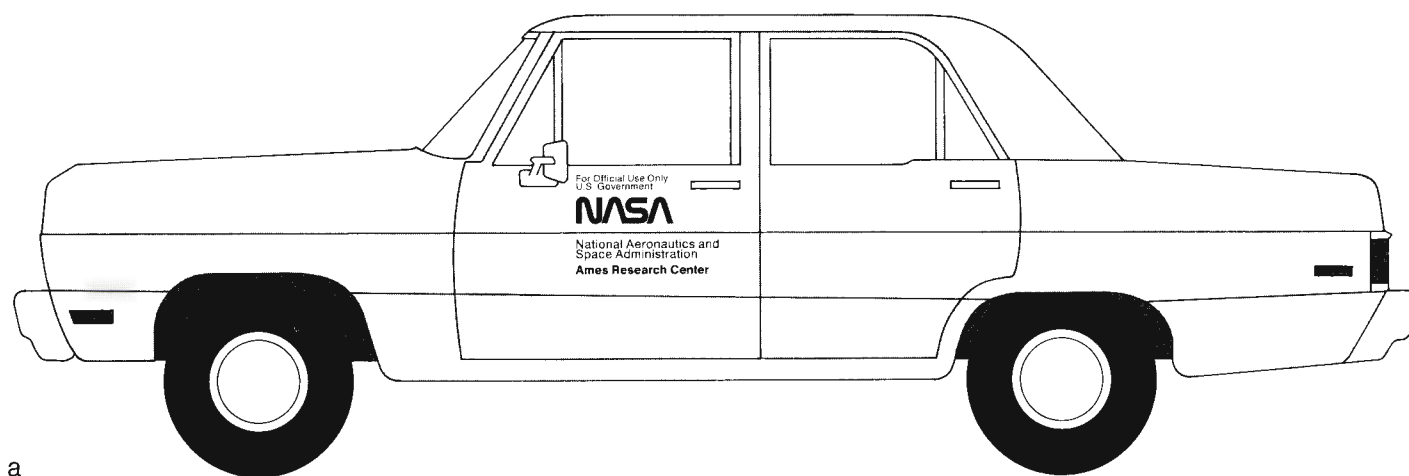
**Motor Vehicles:
Various Colors & Values**

The majority of NASA vehicle identification consists of marking a wide variety of makes, models and types of vehicles painted in an equally wide variety of colors and values. These vehicles are marked with either black or white identification configurations, as shown on the two sedans below.

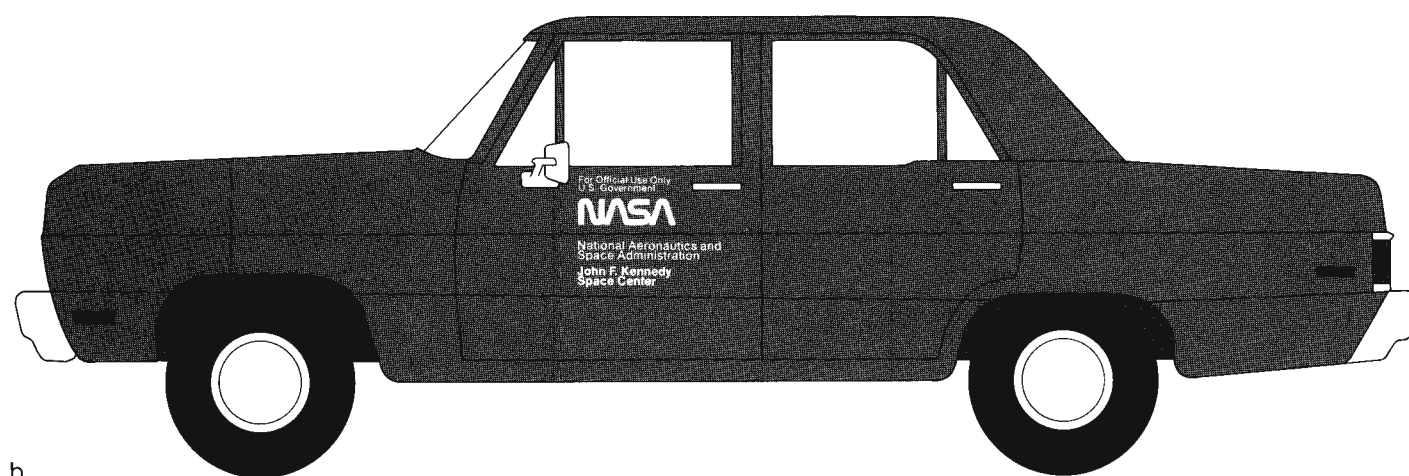
Using the gray scale on the previous page, the color value of the vehicle is determined. If the vehicle is a 40% value or lighter, the identification con-

figuration is black (fig. a). If the vehicle is darker than a 40% value on the gray scale, the identification configuration is white (fig. b).

Note that in these demonstrations the typography does not overlap the sculptured edges or molding on the doors and the flush-left handling of all the elements is retained.



a



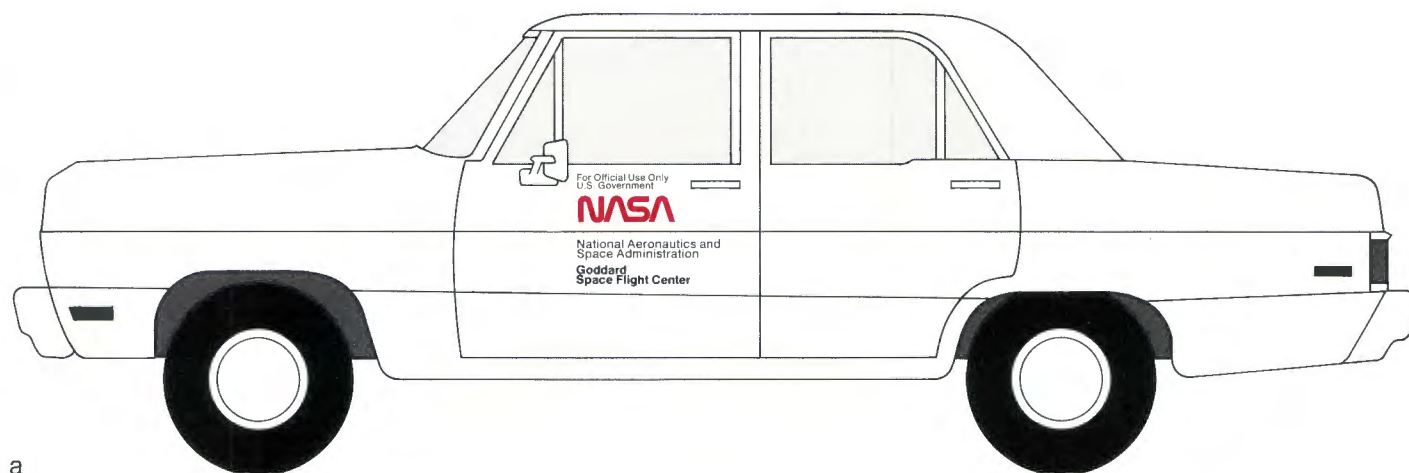
b

**Motor Vehicles:
White & "Special" Vehicles**

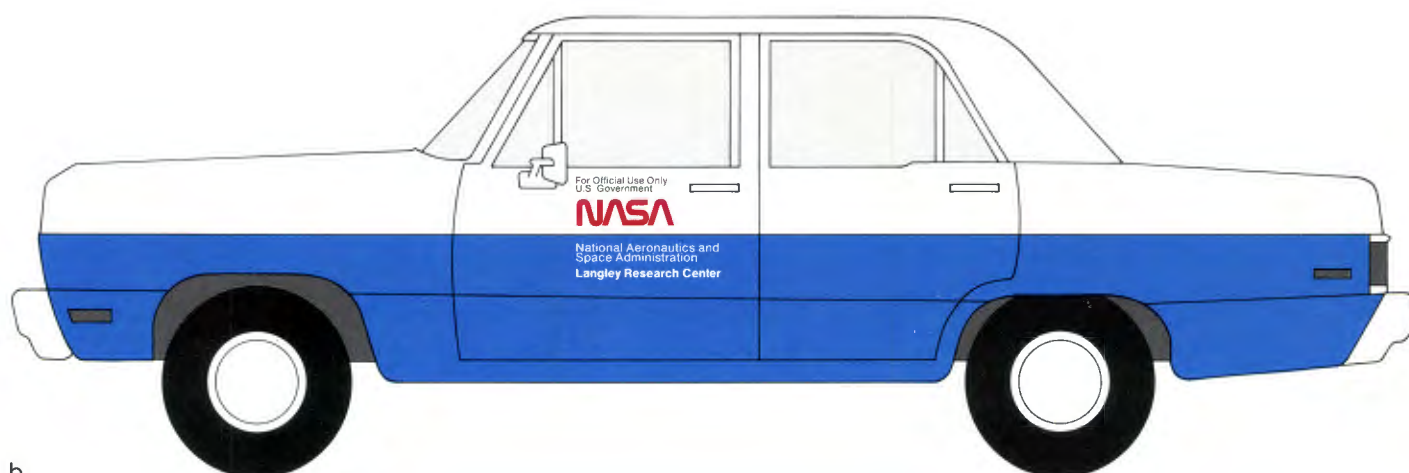
A white vehicle provides an opportunity to utilize the logotype in NASA red with all other typography in black, as shown below (fig. a). The sizes and relationships of the identification configuration remain the same. Note that a red logo is used only on a *white* background for vehicles.

A "special" vehicle, intended to be more conspicuous to the general public, may be painted in the white/blue scheme shown below (fig. b). The vehicle is visually divided in half into a white stripe on top and a blue stripe on the bottom. (The specific contours of the car model often suggest where the division should be). The government use identification is black, the logotype is NASA red, and the agency and center identification is white. The flush-left handling of all elements is retained.

The color specifications for the white/blue scheme (gloss enamels from the Federal Standard Color System) are as follows: White # 17886, Blue # 15102.



a



b

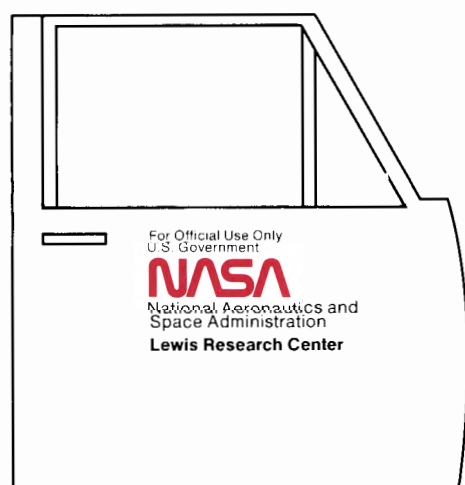
The Identification Configuration With the Logotype

The illustrations below show the various sizes of the four elements that comprise the identification configuration and the approximate placement of the configuration on the door of the vehicle.

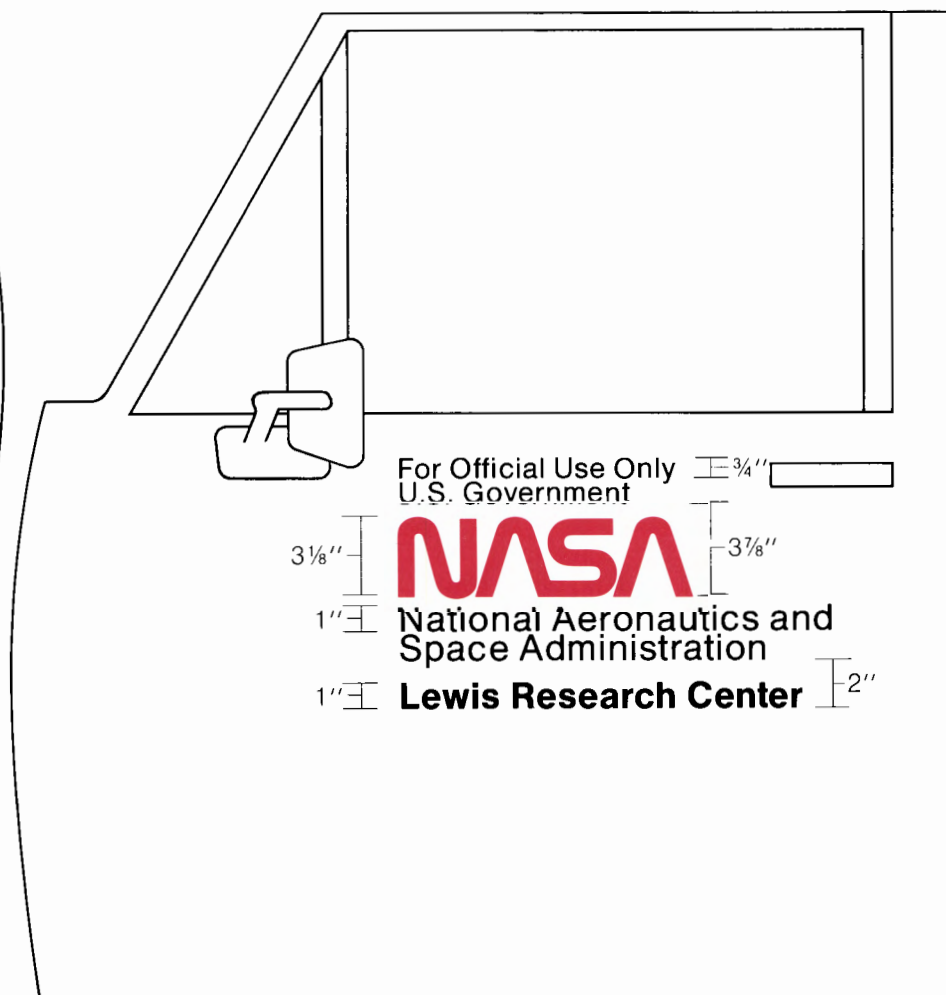
These marking configurations are pre-spaced, dry-transfer mylar letters. The center name, prepared in either one or two lines, is positioned 2" below the agency name as shown below. It may be necessary to adjust the posi-

tioning of the configuration to accommodate chrome molding, door guards, etc. that vary on most vehicles. It is imperative to retain the flush-left handling of all elements.

The small illustration below demonstrates the correct application of the configuration to the passenger door.



Passenger door application



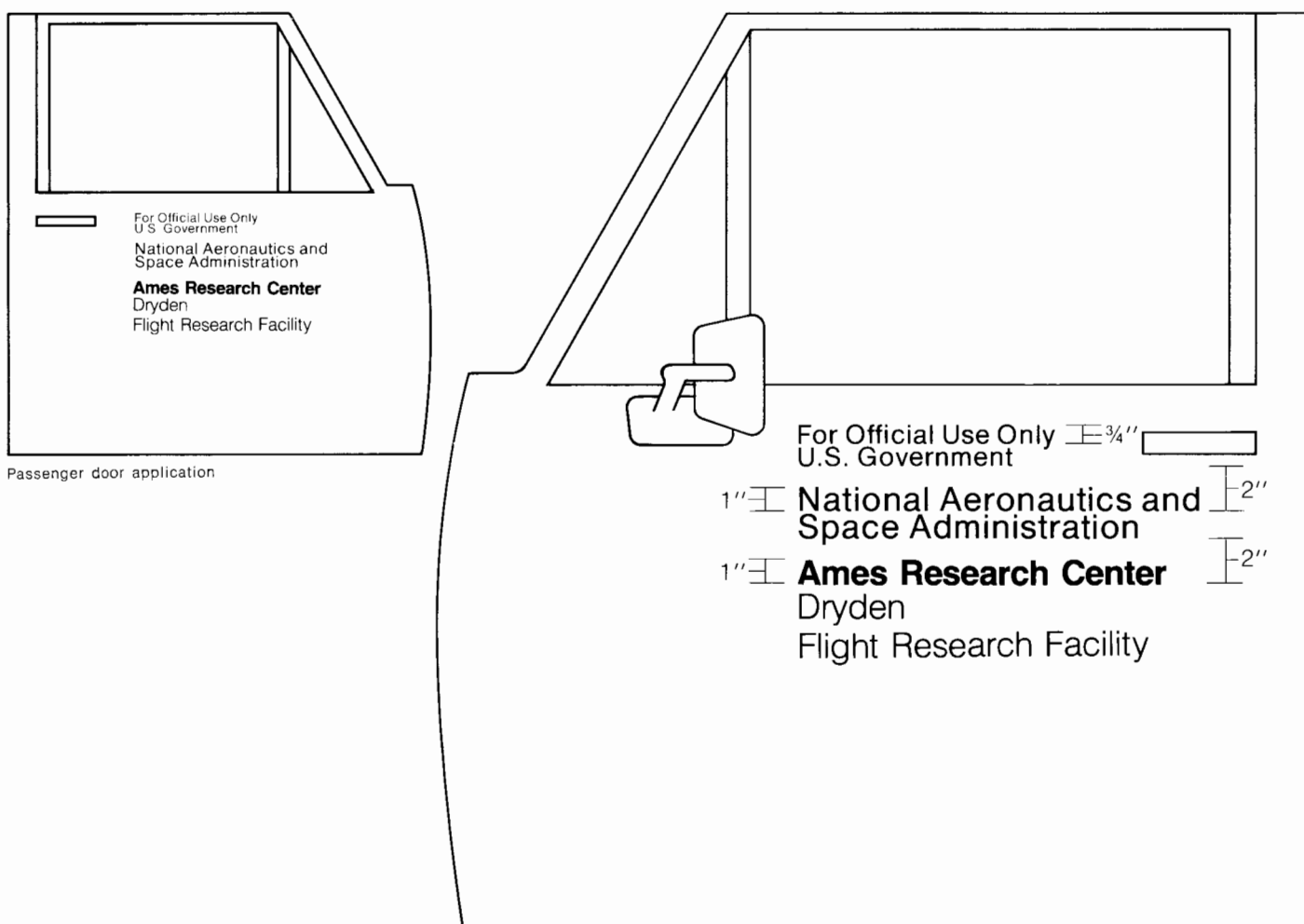
The Identification Configuration Without the Logotype

In appropriate instances, the NASA logotype may be separated from the identification configuration and positioned elsewhere on the vehicle or in a larger size. The remaining identification elements remain on the front doors of the vehicle.

The illustrations below show the various sizes of elements that comprise the identification configuration, sans the logotype, and the approximate placement of the configuration on the door of the vehicle. The $3\frac{1}{8}$ " cap

height logotype appears elsewhere on the vehicle for a better display. Refer to the various demonstrations on the following page.

The small illustration below demonstrates the correct application of the configuration, sans the logotype, to the passenger door. All elements are flush-left.



Motor Vehicle Identification Demonstrations

The flexibility and variety of the NASA vehicle identification system is demonstrated in the seven illustrations below. The consistency within the system is achieved through the simple, clean application of the typography and the distinctive display of the logotype on the various vehicles.

a) Pick-up truck: On a color of light value, all identification is black. A 5" cap height logotype is used at the rear of the vehicle for a more prominent display. The typography on the door

is adjusted to accommodate the contour edge of the vehicle while retaining the flush-left configuration.

b) Panel truck: On a color of dark value, all identification is white. Adequate space allows the logotype to be separated from the other identification and displayed in a larger size (8" cap height).

c) Panel truck with windows: The larger logotype (8" cap height) is separated from the other identification and aligns with the x-height of the first line of the configuration. All identification is white on a dark color vehicle.

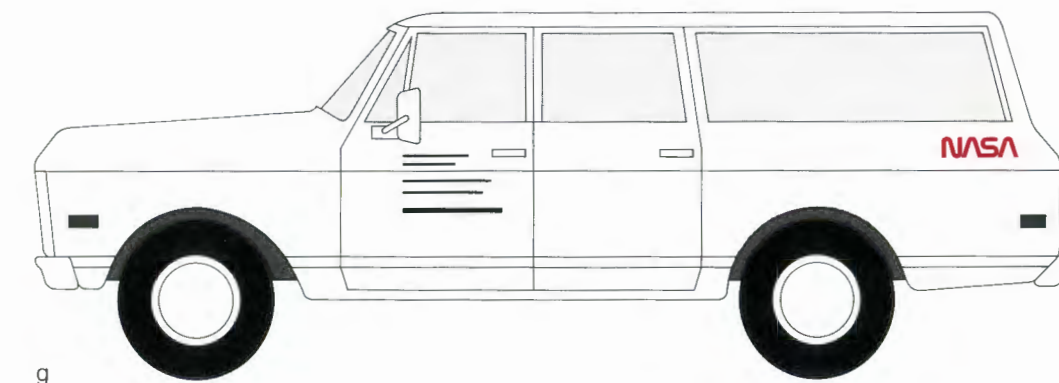
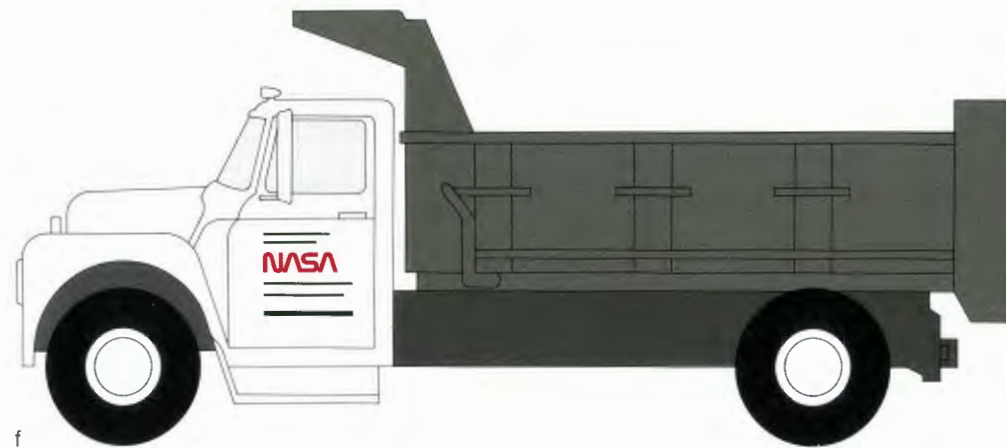
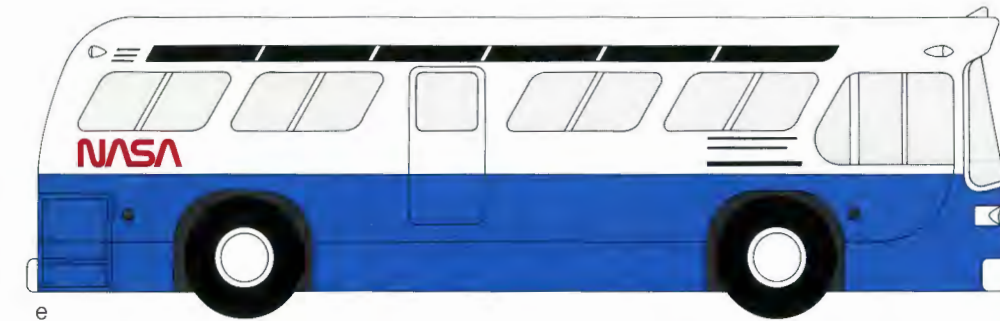
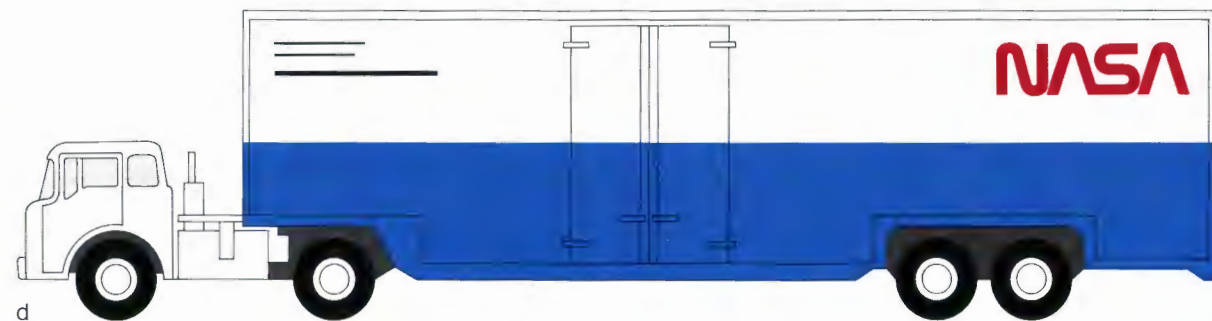
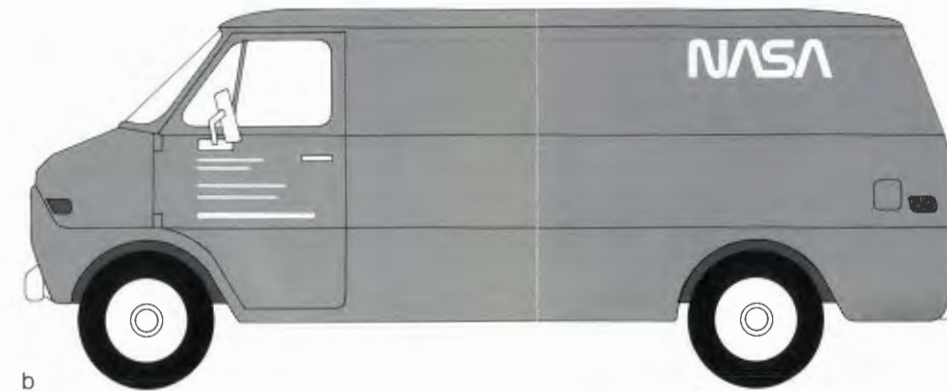
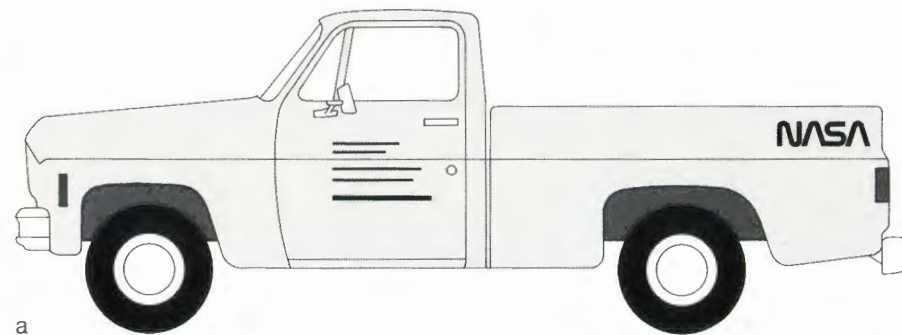
d) Tractor-trailer van: This is an appropriate use of the white/blue scheme on a vehicle which may be frequently seen by the public. The cap height of the typography is 3½" and the cap height of the logotype is 24" on this and other vehicles of this scale. An 18" logotype is available for smaller vans.

e) Bus: The white/blue scheme may also be appropriate here. The cap height of the typography is 2¾" and the cap height of the logotype is 12" on this and other vehicles of this scale.

f) Truck: On trucks that require painting, the cab is white and the remainder of the vehicle is NASA warm gray. A

standard configuration for a white vehicle is applied to the cab doors. The gloss enamels are from the Federal Standard Color System: White # 17886, Gray # 16165.

g) Station wagon: The standard size NASA red logotype (3⅛" cap height) is positioned at the rear of the white station wagon. The typography on the door retains the flush-left handling of the elements.



NASA Aircraft Paint and Marking Scheme

The overall aircraft paint and marking scheme normally consists of a blue stripe down the middle of the fuselage sides, white fuselage top, white wings, gray fuselage bottom, FAA registration number and other markings for exits, rescue, warning areas, etc. This scheme incorporates uniform logotype markings applicable to NASA-controlled aircraft.

Some typical approved paint scheme applications are shown on the following pages. Although not complete in all details, these examples demonstrate some common relationships between the aircraft structure and the marking scheme, incorporating the following guidelines to be used in developing paint scheme applications for other aircraft:

The preferred location of the logotype is on the vertical fin (for vertical fin aircraft), unless operational considerations preclude such location. The

logotype is NASA red, accompanied by the aircraft number in black Helvetica Medium. These markings are as large as possible. When the markings exceed 12" in height, the logotype is a minimum of 25% larger than the numerals.

Based on the size logotype being used, there is approximately one stroke-width's space between the logotype and the numerals, and also between the logotype and the edge

of a rubber boot or the leading edge of the vertical fin.

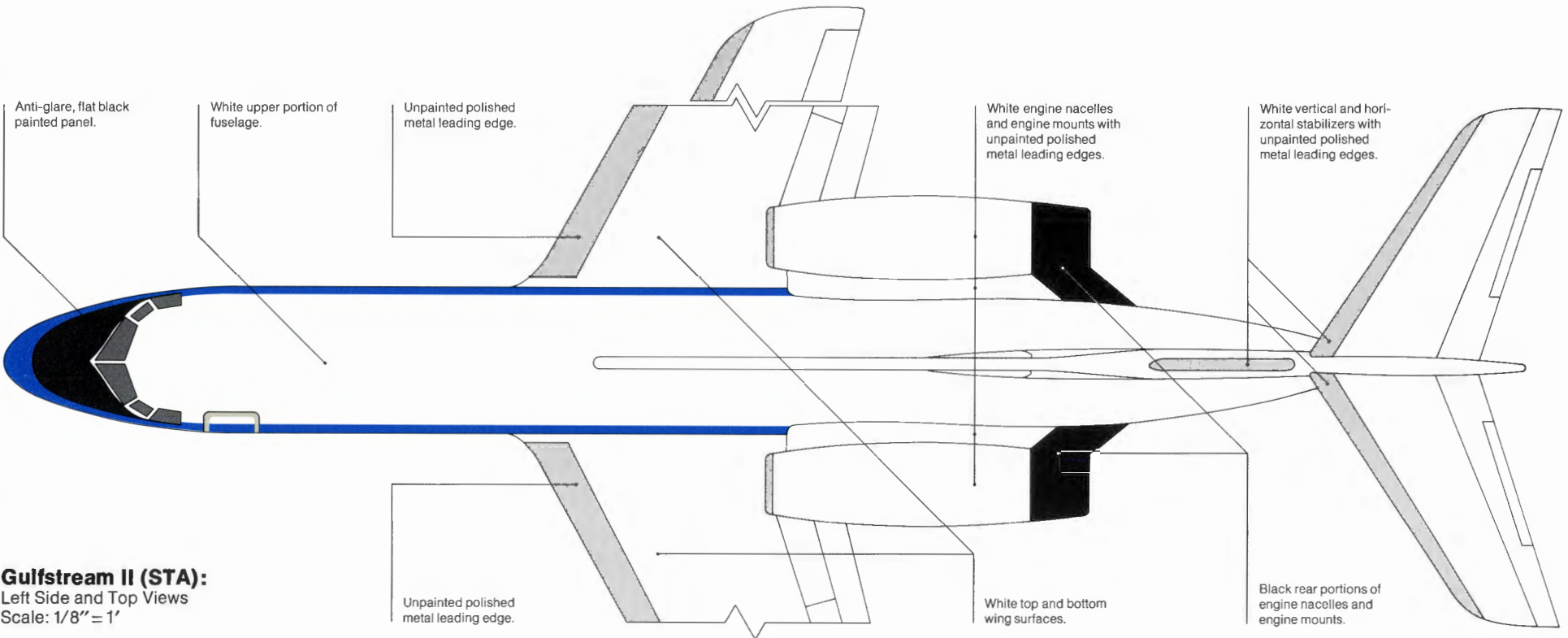
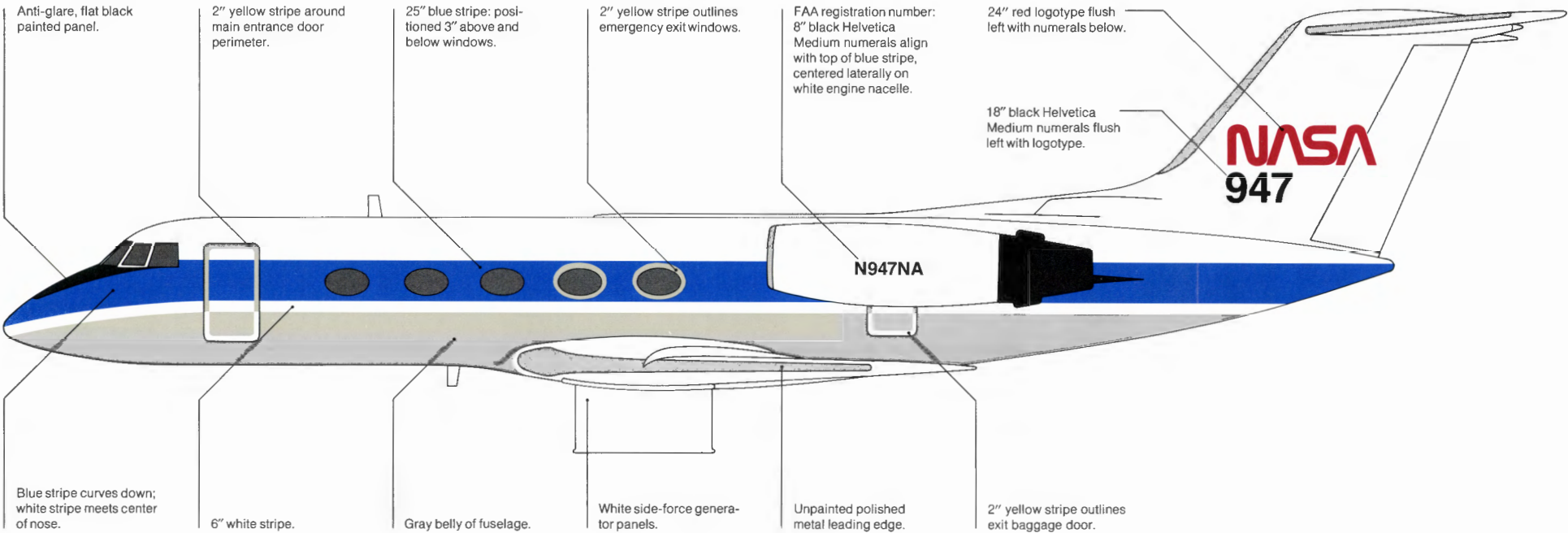
On the left side of the fin, the logotype and numerals are always flush left. On the right side, the configuration is always flush right in approximately the same position. When movable control surfaces are involved, the sizes and positions of these elements are carefully determined to avoid breaking the logotype on a curved stroke on either side.

To comply with FAA regulations, the complete registration number will usually appear in 12" white Helvetica Medium within the blue stripe on the fuselage between the end of the wings and the leading edge of the horizontal stabilizer.

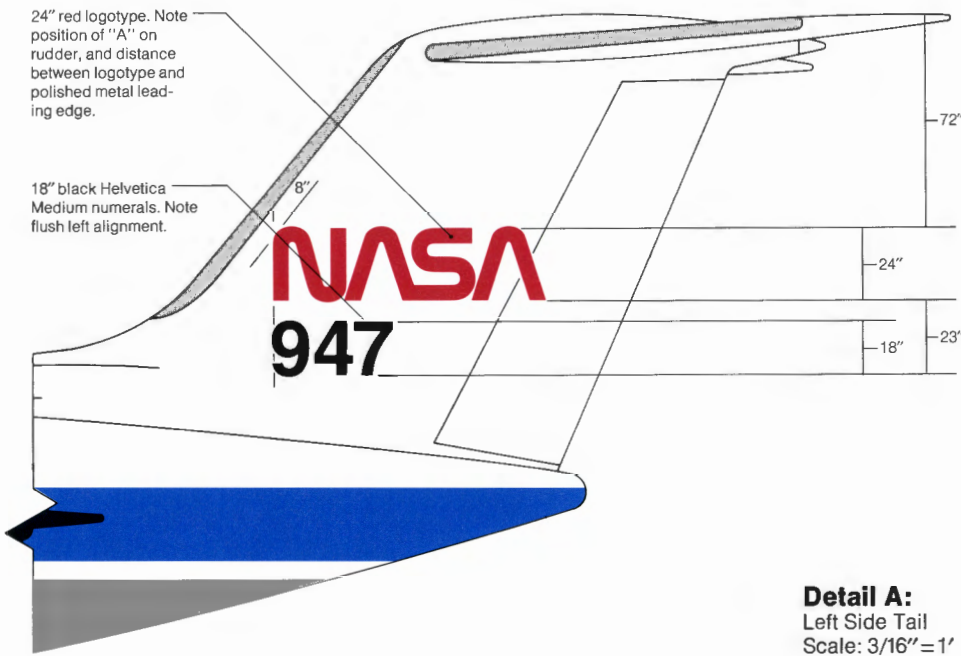
Exit and rescue markings shall be in accordance with U.S. Air Force T.O. 1-1-4, except that FAA regulations for commercial air carriers may be used for NASA administrative aircraft.

Aircraft Operations personnel at each field installation can provide other operational or safety marking requirements to be included in developing applications of this paint and marking scheme to other aircraft.

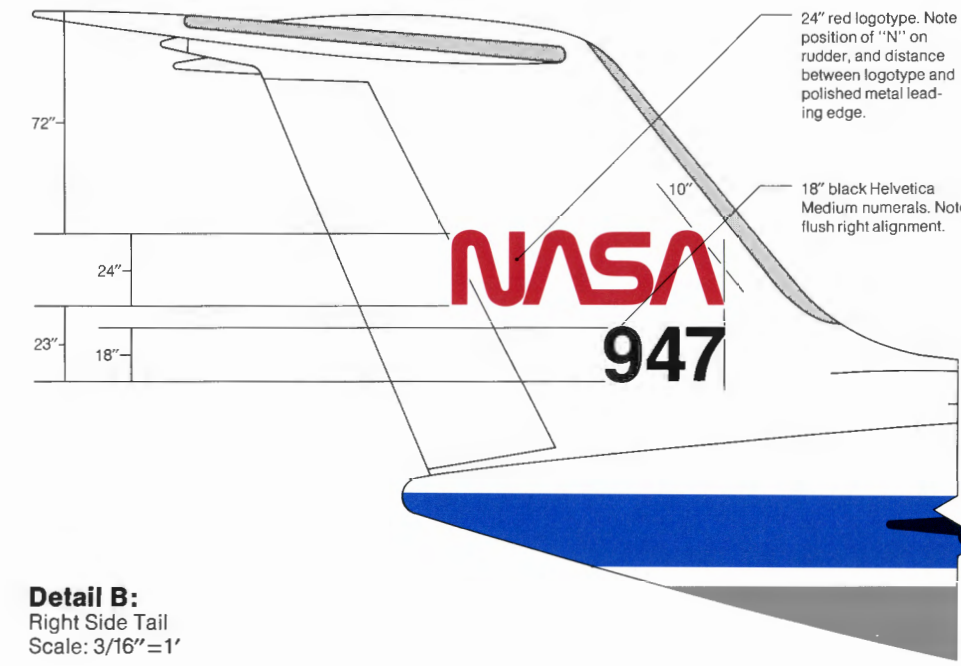
All new applications of the paint and marking scheme must be submitted to the Aircraft Office for Headquarters approval.



Gulfstream II (STA):
Left Side and Top Views
Scale: 1/8" = 1'



Detail A:
Left Side Tail
Scale: 3/16" = 1'



Detail B:
Right Side Tail
Scale: 3/16" = 1'

NASA Aircraft Markings

The marking scheme adapts well to the wide range of aircraft shapes and sizes that comprise the NASA fleet. Shown below are approved paint and marking schemes for eight aircraft.

a) Grumman Gulfstream I: The windows determine the width and placement of the blue stripe. Fuselage markings align with the top edge of the windows.

b) Northrop T-38: The top of the blue stripe aligns with the top edge of the jet engine nacelle. Fuselage markings are flush with the trailing edge of the wings.

c) Lockheed F-104: The blue stripe aligns with the width of the jet engine inlet cone and the nose of the fuselage. Fuselage markings align with the top of the wings.

d) Beech Queenair 80: The blue stripe is positioned under the windows. Fuselage markings meet the 12" cap height requirement, aligning with the rear edge of the window above.

e) Lockheed P-3: The blue stripe includes the round windows on the fuselage. An American flag, required on this aircraft, is flush right with the logotype. Wing and horizontal stabilizer tips are red for high visibility against white backgrounds.

f) Lockheed F-106: The bottom of the blue stripe aligns with the leading edge of the wings. Fuselage markings are flush left with the tail markings.

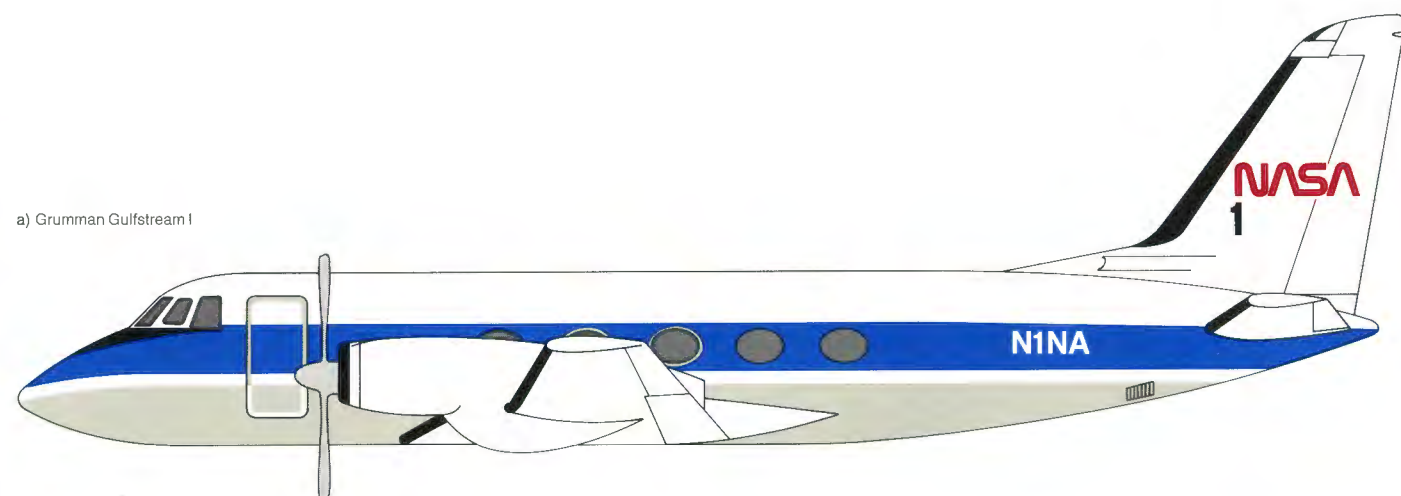
g) Beech C-45: The blue stripe aligns with the top and bottom of the windows. Fuselage markings meet the 12" cap height requirement, centered within the blue stripe.

h) Bell UH-1B Helicopter: The top of the blue stripe aligns with the bottom of the cockpit window and angles up the tail. The logotype and numeral are in a horizontal configuration, flush left under the door windows.

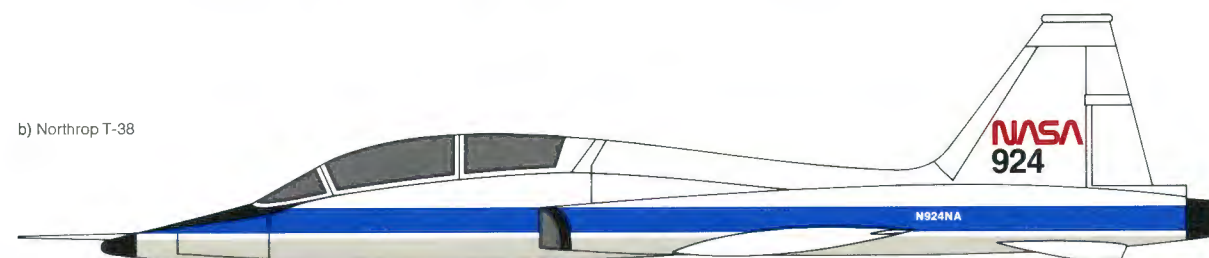
These eight schemes serve also as guides for developing marking applications for other aircraft in the NASA fleet. Leased or loaned aircraft may have a minimum marking of a red logotype with black Helvetica

Medium numerals. This type of aircraft (when repainted by NASA) is painted following the white/blue/gray scheme shown here.

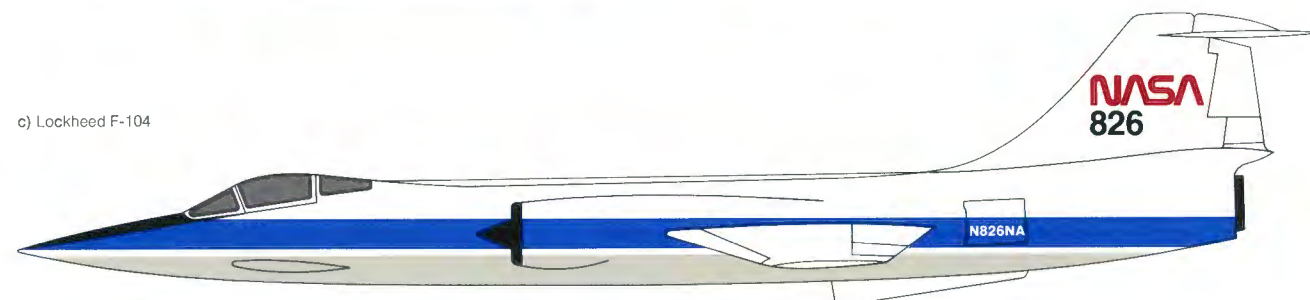
Complete detailed specification drawings (including color specifications) on all aircraft shown on these pages, are available from the NASA Aircraft Office.



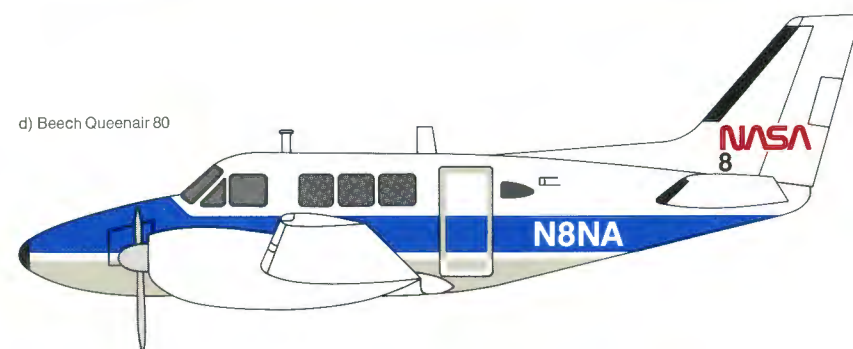
a) Grumman Gulfstream I



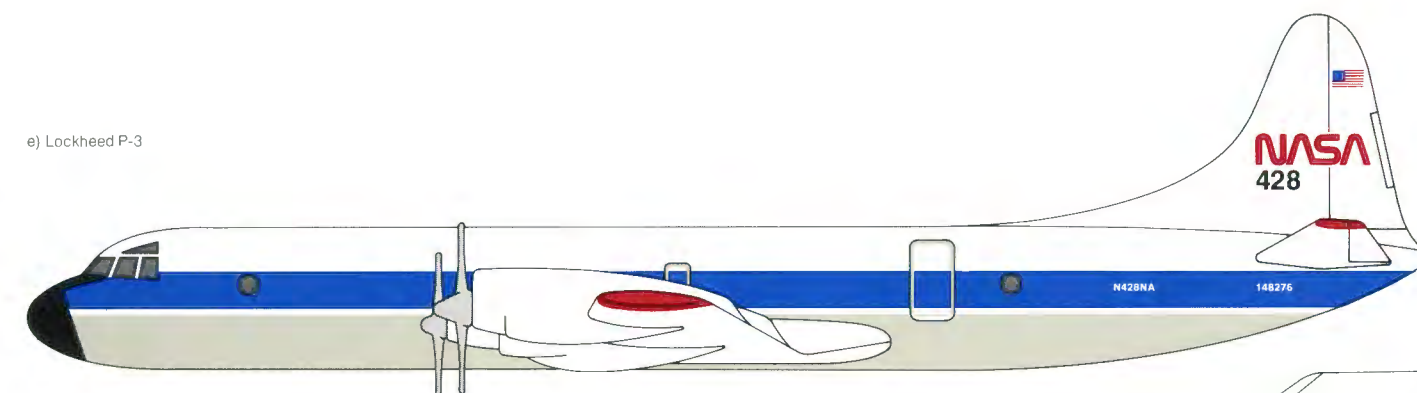
b) Northrop T-38



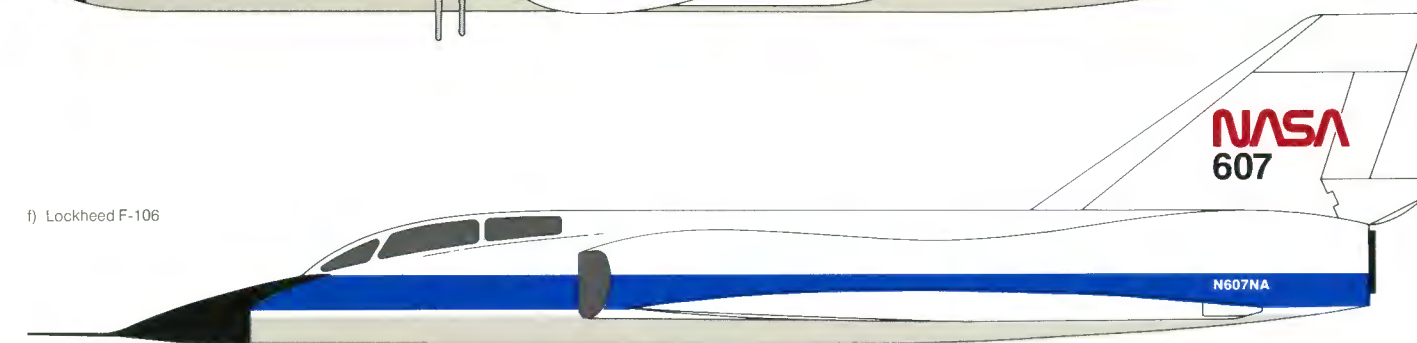
c) Lockheed F-104



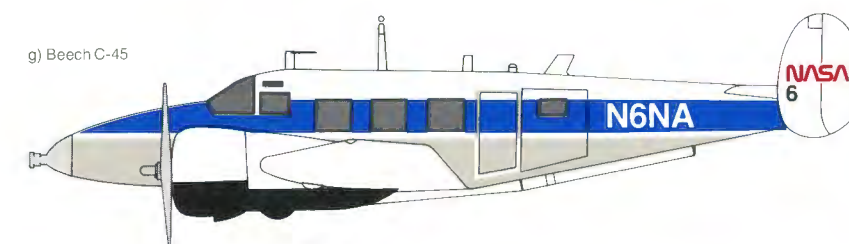
d) Beech Queenair 80



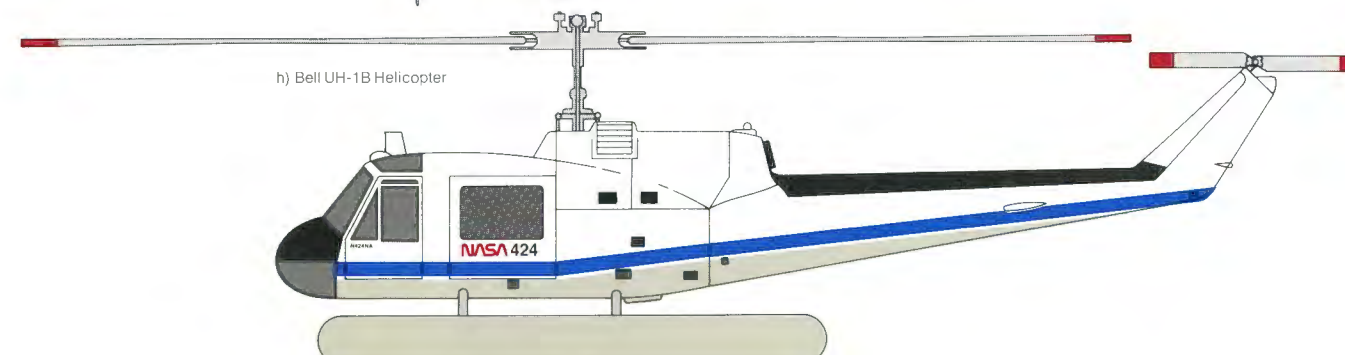
e) Lockheed P-3



f) Lockheed F-106



g) Beech C-45



h) Bell UH-1B Helicopter

NASA Spacecraft Markings

The marking of NASA spacecraft vehicles is essential, critical, and difficult. It is quite important that any identification or markings which appear on spacecraft be consistent with the overall goals of the NASA Unified Visual Communications System. These vehicles represent tangible evidence of many of NASA's most interesting programs. As such, they are the focus of considerable public and media attention and should be marked in simple but effective ways.

Another important consideration is that the vehicle be marked so that it can be identified from different angles, whether in a launch mode or in outer space.

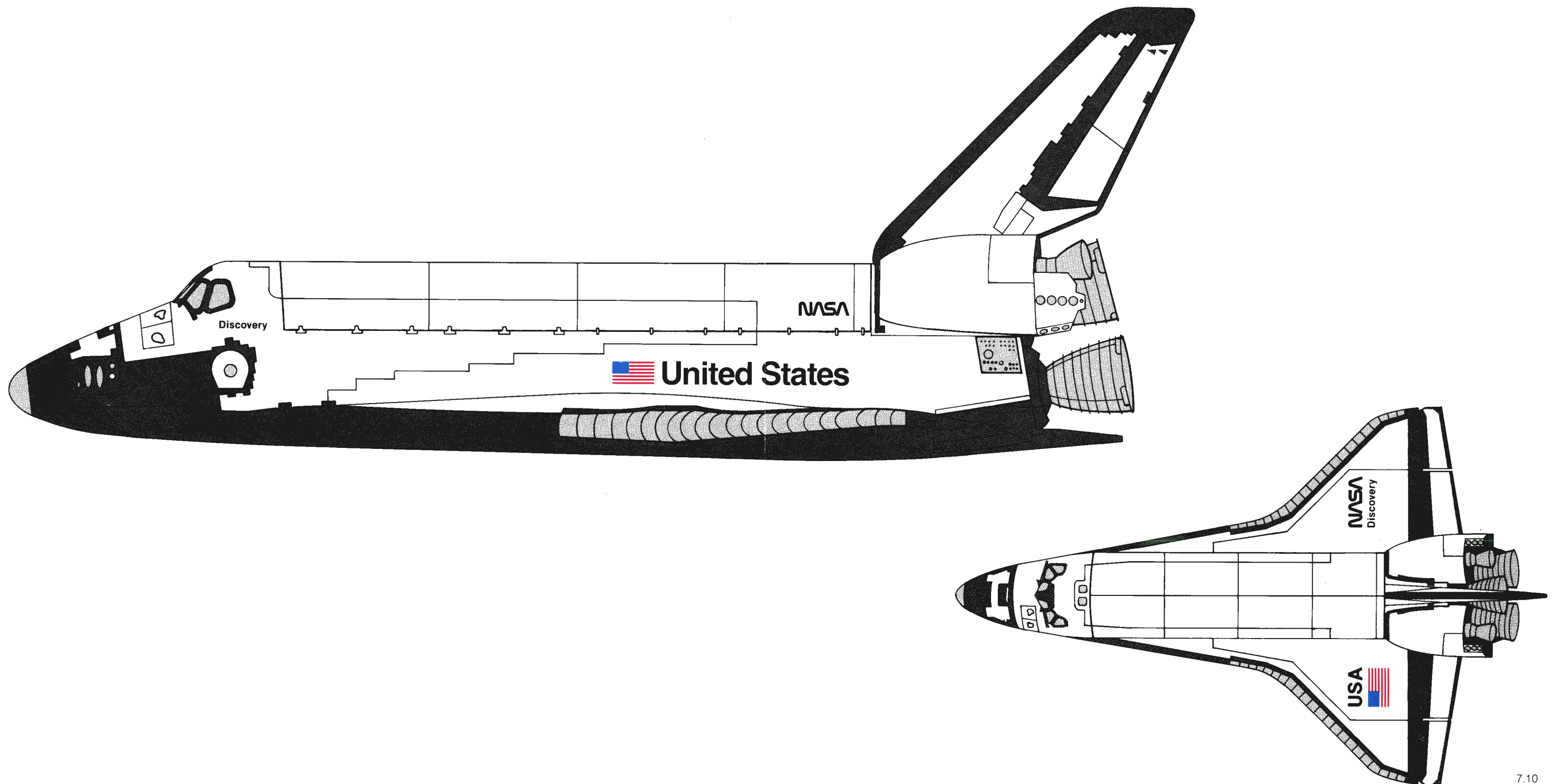
Of course, the overriding consideration is that the markings not interfere or impede the scientific mission of the craft. This principle applies to maintenance as well as the operational qualities of the craft when performing in space. This objective is very achievable as demonstrated on the Space Shuttle shown below.

Only a few isolated areas were designated for graphics by flight engineers and scientists. Working within these serious constraints, the Shuttle Orbiter is fully marked with all of the basic identifiers: The NASA Logotype, the American flag, United States, USA, plus the name of the particular craft. Helvetica Medium is the typeface used on the spacecraft.

Note that the NASA Logotype appears in NASA Gray so as not to conflict with the red of the American flag. The flag is equal to the height of the capital letters on the side, top, and bottom of the craft. The placement of these identifying elements is responsive to technical requirements as well as being harmonious with the basic shape and form of the Shuttle.

On the following gatefold you will see examples of other spacecraft which

employ one or several of the available markings. Though they vary in size, shape, and configuration, they nevertheless maintain a strong overall relationship within the NASA Unified Visual Communications System.

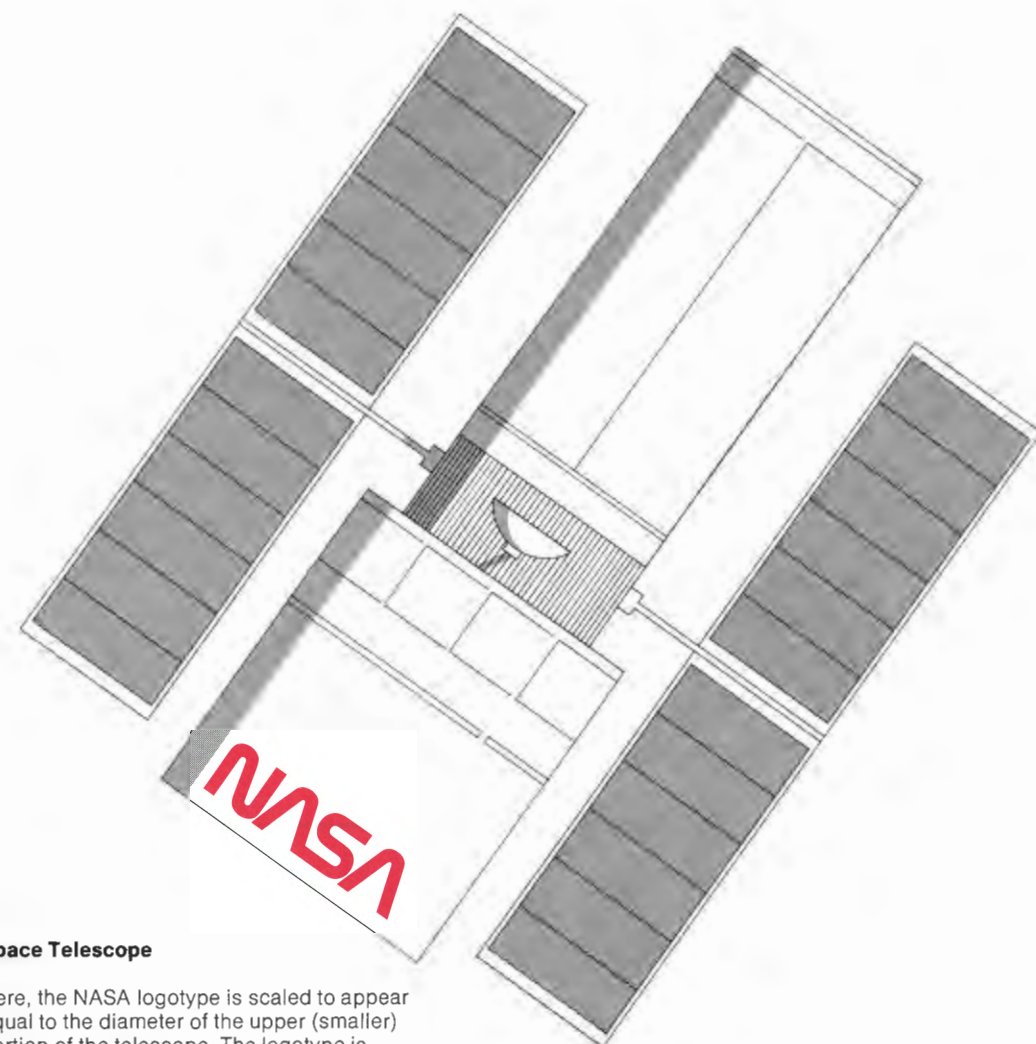


NASA Spacecraft Markings

When marking a NASA spacecraft, several principles should be kept in mind: 1) Compliance with scientific and operational requirements, 2) Maximum graphic impact, 3) The use of as many identifiers as possible without creating visual competition or clutter, 4) Consistency within the NASA Unified Visual Communications System.

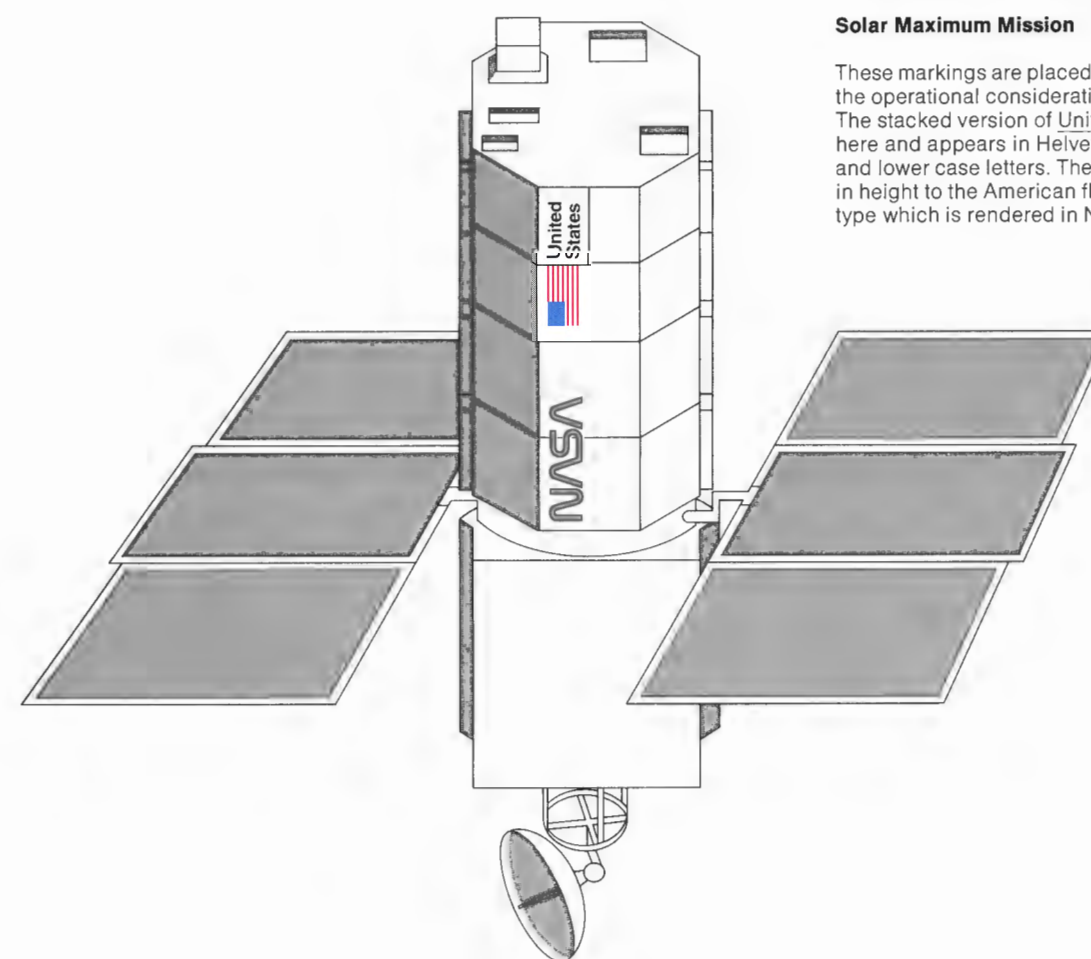
In the model demonstrations on this spread, judgements have been made based on the criteria just described.

The minimum marking would be the NASA Logotype while other elements are added depending on availability of space and appropriateness. Remember to apply these basic guidelines when marking spacecraft vehicles in the future.



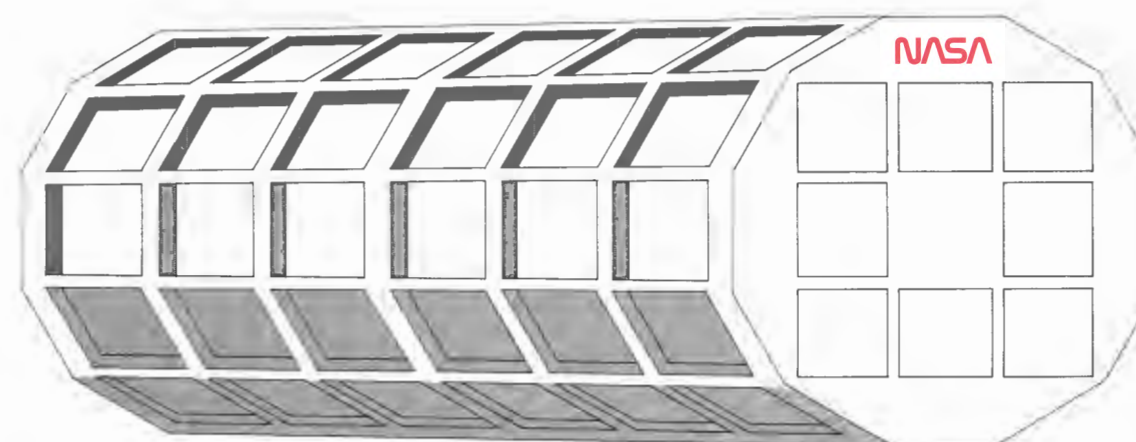
Space Telescope

Here, the NASA logotype is scaled to appear equal to the diameter of the upper (smaller) portion of the telescope. The logotype is applied in NASA Red since no American flag appears on the craft. On a large spacecraft such as this, the logotype creates significant graphic impact on land or in space.



Solar Maximum Mission

These markings are placed in accordance with the operational considerations of the craft. The stacked version of United States is used here and appears in Helvetica Medium upper and lower case letters. These words are equal in height to the American flag and the logotype which is rendered in NASA Gray.



Long Duration Exposure Facility (LDEF)

Only the NASA logotype is employed since there is very little space allotted for graphics on this craft. Because nothing else competes, the logotype appears in NASA Red on both the front and rear of this unusual spacecraft. The size of the logotype is equal to the width of the square panel directly underneath.

Aerospace Education Unit

This is an example of a special purpose vehicle that offers wide exposure of the NASA Unified Visual Communications System to the general public. The design utilizes NASA red and warm gray with a large logotype.

While this specific vehicle design is distinct from the other vehicles shown on the previous pages, it has a similar "family" look due to the use of the Helvetica typefaces, the flush-left handling of the typography, the large display of the logotype and the relationships between the various elements.

A clean, simple look is desired in all such instances, emphasizing the logo-

type as the primary element identifying the vehicle to the agency. The name of the specific vehicle (i.e. Aerospace Education Unit) is on the second level of emphasis. The full agency and center name are in a small scale and subordinate to these two elements. The government use information remains on the front doors of the vehicle.



Certificates & Awards

The NASA seal is incorporated in the design of important certificates and awards. Those awards which are given for substantial service or performance and which are held in high esteem are designed in a more traditional style. Illustration (a) is an example of such an award.

Merit certificates of a short-term or lesser rank can be designed in a more

contemporary style and may employ the NASA logotype as shown in the illustrations (b) and (c).

The length of the Federal Service Award shall consist of an Award Certificate and a Service Pin both of which will incorporate the NASA seal.



NASA Vinylcals and Decals

The use of the NASA logotype and identification is often necessary on a wide variety of objects and surfaces including machinery, office equipment, doors, plaques, etc. To facilitate these markings, the NASA identification is available for use in the form of vinylcals only (dry-application: pressure-sensitive, adhesive-backed vinyl). Decals (wet application) are specified below for use on transparent surfaces (windows, doors, etc.) and are obtained by

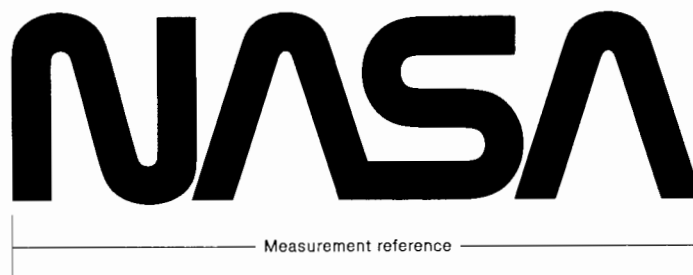
NASA installations as required. Decals are not available at NASA Headquarters because of limited requirements. Please note that neither vinylcals nor decals are intended for use on vehicles. A more permanent method of identification for vehicles is dealt with in the Vehicles section of this manual.

Vinylcals will solve most general identification problems. The NASA Red logotype and the agency name in black appear on a white field with rounded corners. There is no installation identification. It is essentially a self-contained small sign and can be applied to any color surface. Vinylcals are available from Headquarters in eight sizes: 1 1/4", 2 3/8", 3 1/8", 5", 7 1/2", 12 1/2", 20", 30". All sizes refer to the horizontal width of the white background.



Decals have a limited usage, intended mostly for transparent surfaces. The logotype appears without agency or center identification. Decals of the logotype are specified in black, white, or NASA Red. When used on solid surfaces the red logos are used only on *white*. A minimum clearance on all sides of three vertical stroke-widths of the logo is recommended. Decals are specified in four sizes: 2", 3", 5", 7 1/2". All sizes refer to the width of the logotype from tip to tip on its baseline.

Vinylcals of the logotype consistent with the above specifications for decals are available in the same sizes from NASA Headquarters.



NASA Uniform Patches

Personnel identification is an important facet of the NASA identification program. An embroidered patch incorporating the logotype is available for application on a wide variety of uniforms and clothing. Two patch designs, shown to the right, are available.

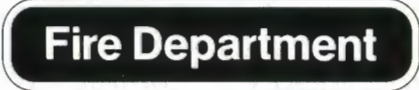
For general personnel, a white patch with a NASA Red logotype is available. This achieves the simplest and most effective identification on various types and colors of clothing that may include other badges or name tags. The patch is applied on the right front side of the garment approximately 1 1/2" (3.8 cm) directly above the breast pocket or in a comparable position on garments without pockets. On a blazer (fig. e), the top edge of the patch aligns with the left breast pocket.

A few specific color recommendations are made for NASA uniforms: royal blue for flight suits; white for lab coats, hardhats, and helmets. A 7" wide (17.8 cm) logotype may be embroidered in NASA Red centered on the back of a white lab coat (fig. d). On a white hardhat or helmet, a 5" wide (12.7 cm) NASA Red decal of the logotype may be centered on the front (fig. g).

To distinguish emergency/security personnel (security guards, firemen, etc.) a distinctive NASA Red patch with a white border, white logotype and the installation identification in black is available. The name of the emergency/security service (i.e. Fire Department) appears in white centered within a smaller black patch that is positioned 3/8" (.9 cm) under the red patch. This configuration is worn on both shoulders of the uniform, on both shirts (fig. f) and outer-jackets. A light blue shirt and hat with dark blue trousers or skirt is recommended.



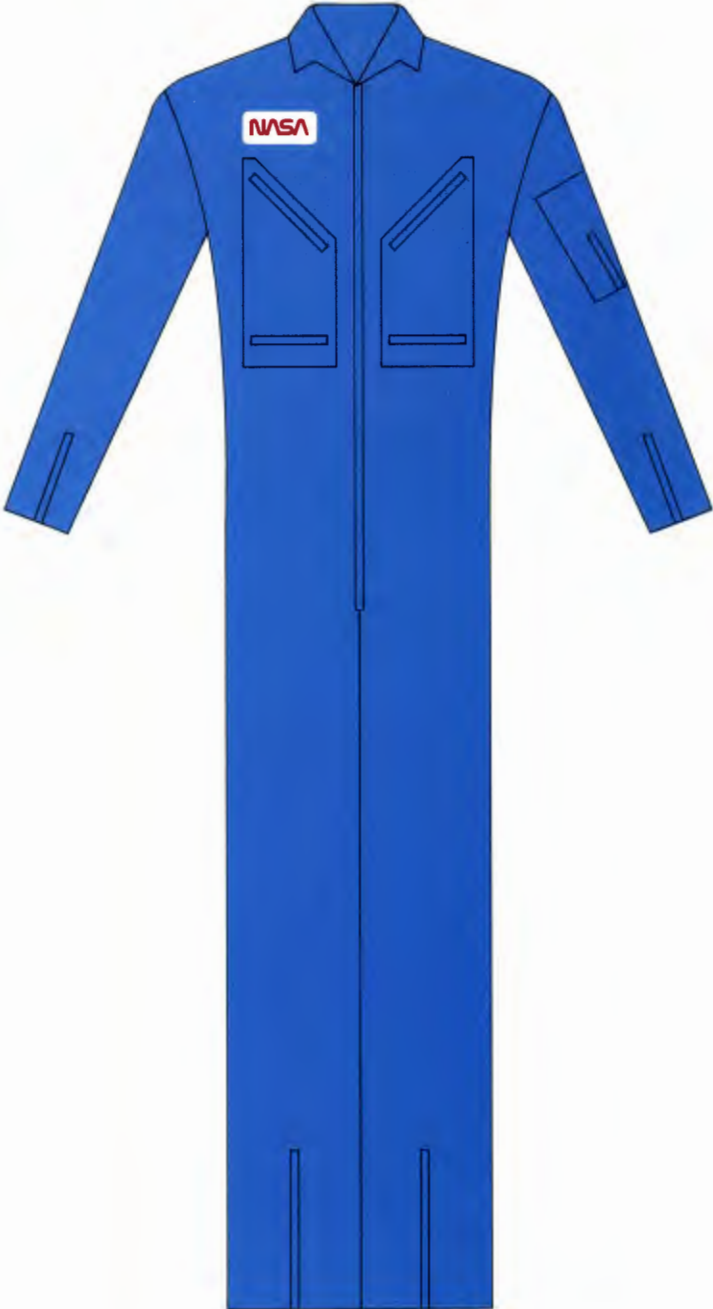
General personnel patch



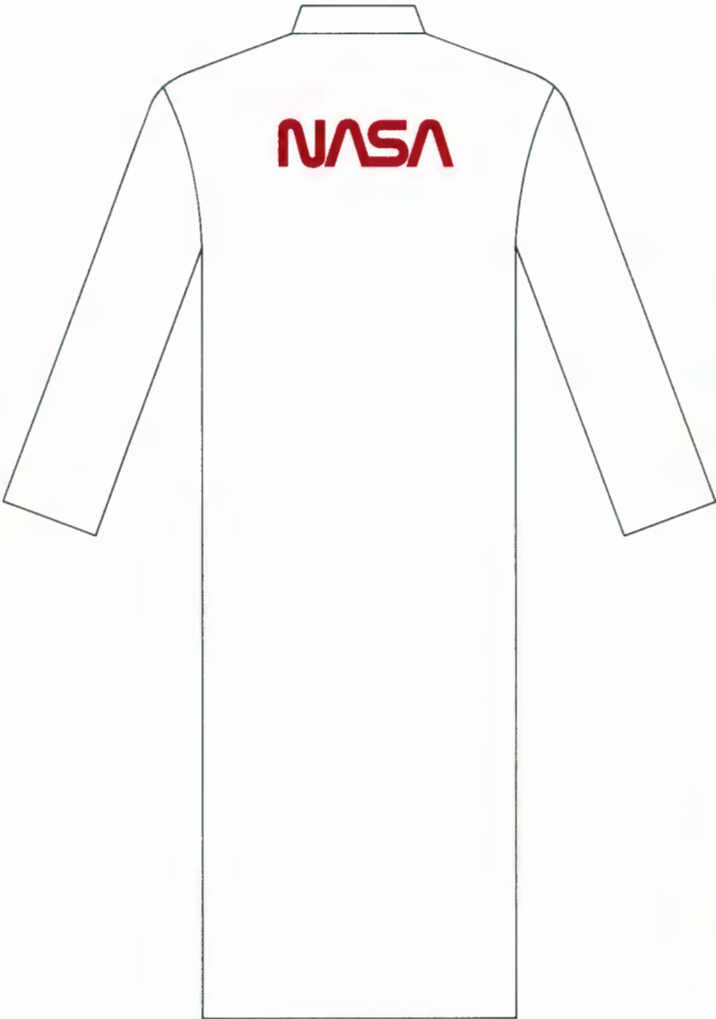
Emergency/security patches



a) Flight jacket



c) Flight suit/mechanic suit



d) Laboratory coat



e) Blazer/sport jacket



b) Shirt/blouse



f) Emergency/security shirt (side view)



g) Hardhat/helmet